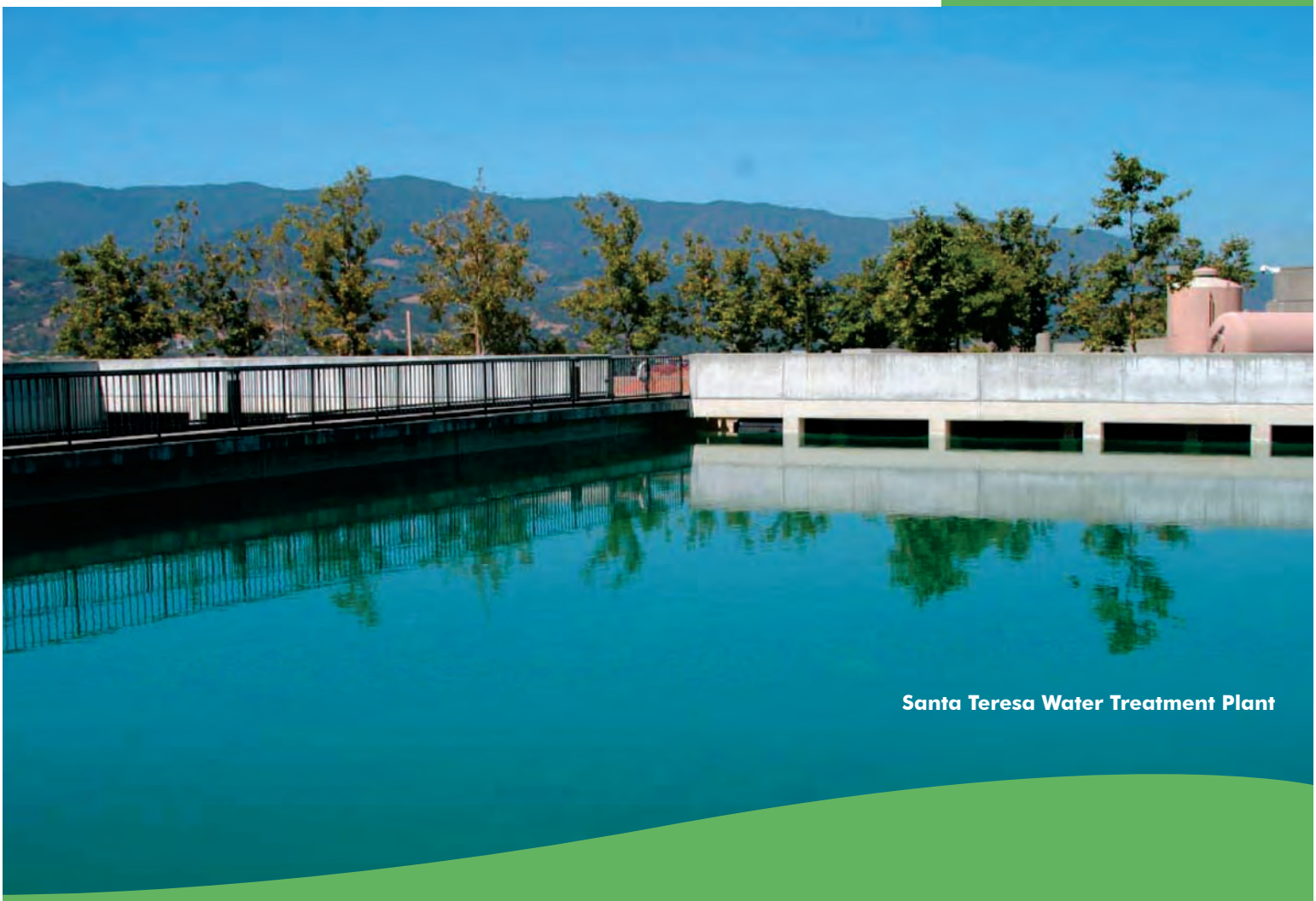
WATER UTILITY ENTERPRISE

Santa Clara Valley Water District

Final



Santa Teresa Water Treatment Plant

Water Utility Enterprise Report

September 2005

Santa Clara Valley
Water District

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September 7, 2005

Dear Board Members:

The *Water Utility Enterprise Report, Final September 2005* presents the financial and water supply information that is the basis for the adopted water rates for fiscal year 2005–06. This report documents the rates adopted for fiscal year 2005–06 and updates information provided in the preliminary report, which was filed in April, as required by the Santa Clara Valley Water District Act.

As you are keenly aware, the Water District is facing a significant reduction in revenues in FY 2005–06. The state government took $25.5 million in District property tax revenues last year and intends to take another $25.5 million in FY 2005–06 to help cover the state's budget shortfall. This represents approximately 10 percent of total Water District revenues. While special districts throughout California are facing revenue losses to the state, no special district is losing as much as the Santa Clara Valley Water District. In fact, the Water District's portion is $18 million more than any other special district.

To respond to this unfortunate reality, District management took immediate steps to reduce expenditures. Ninety regular staff positions, about 10 percent of the workforce, were deleted from the FY 2004–05 budget. That staffing level was preserved under the current budget. District management continues to closely scrutinize the need to fill each new vacancy that occurs.

Eliminating 90 positions is only a start. Under the current rate projection, numerous planned capital improvement projects will be delayed, some indefinitely. This fiscal year, reserves will be used and every division is facing significant budget cuts. Savings in administrative expenses amount to a reduction in our overhead expenses of 10 percent.

I have announced a new vision for the Water District to become "Cleaner, Greener, and Leaner." Every employee will be involved in identifying and implementing ways to work more efficiently while maintaining our high standards and meeting the expectations of the communities we serve.

One of those community expectations is that water remain affordable. Over the last few years, our water rate projections have indicated that we would need to increase rates significantly each year to meet new water quality regulations, ensure a reliable water supply into the future and continue the other services we provide.

We have concluded that we need to conduct our work more efficiently, slow our pace of capital improvements and come to agreement on the community's expectations of what levels of service to provide. These changes enable us to project flatter water rate increases into the future. As a result, the Board adopted a water rate increase in FY 2005–06 lower than what had been projected last year.

The rates adopted for FY 2005–06 will support the operating and capital budget for the water utility. The FY 2005–06 North County Municipal and Industrial rate for groundwater will grow by 3.7 percent to $420 per acre-foot, half the increase we had projected last year. To cut the projected increase in half, we have postponed some capital projects, curtailed selected

operations, and maximized the use of reserves to reduce borrowing. The corresponding rate for agricultural water in North County is $42.00 per acre-foot.

In South County, the flatter rate scenario that was proposed will result in continued annual revenue shortfalls for several years. The adopted rate for South County Municipal and Industrial groundwater is $215 per acre-foot, an increase of 7.5 percent, still $25 less than what was projected last year. The corresponding rate for agricultural water in South County is $21.50 per acre-foot.

The attached report includes historical data on District water supply and demand and describes the benefits of the District's activities that underlie the need for the adopted groundwater charges. The final section discusses the revenue requirements for the upcoming fiscal year and provides financial projections for the next 10 years.

Sincerely,

Stanley M. Williams
Chief Executive Officer

Water Utility Enterprise Report

Darin Taylor
Senior Project Manager

Linda Louie
Assistant Engineer

Marty Grimes
Program Administrator

Under the Direction of
Walt Wadlow
Chief Operating Officer
Water Utility

District Board of Directors

Rosemary C. Kamei – District 1
Joe Judge– District 2
Richard P. Santos, Chair – District 3
Larry Wilson, Vice Chair – District 4
Gregory A. Zlotnick – District 5
Tony Estremera – At Large
Sig Sanchez – At Large

Our Mission

The Mission of the District is a healthy, safe,
and enhanced quality of living in Santa Clara County
through watershed stewardship and comprehensive
management of water resources in a practical,
cost-effective, and environmentally sensitive manner.

Santa Clara Valley Water District Board of Directors

Back row, standing (from left to right): Joe Judge, Tony Estremera, Larry Wilson, Richard Santos
Front row, seated (from left to right): Sig Sanchez, Rosemary Kamei, Gregory Zlotnick.

Rosemary Kamei
District 1

Joe Judge
District 2

Richard P. Santos
District 3

Larry Wilson
District 4

Gregory A Zlotnick
District 5

Tony Estremera
At Large

Sig Sanchez
At Large

Preface

This is the 34th annual report on the status of the Santa Clara Valley Water District's (District) Water Utility Enterprise. In accordance with Section 26.5 of the District Act, the District annually prepares a written report on its activities to protect and augment its water supplies. As required by the District Act, this report provides information on the present and future water requirements of Santa Clara County (County), the water supply available to the District, future capital improvement and maintenance and operating requirements, financing methods, and the water charges by zone for agricultural water and nonagricultural water.

Additional information on Board Governance Policies and financial information can be found on the District website: www.valleywater.org

Please email any questions you may have regarding this publication to Darin Taylor, Senior Project Manager at the following email address, dtaylor@valleywater.org.

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1. ADOPTED WATER RATES AND SUMMARY

INTRODUCTION

The mission of the Santa Clara Valley Water District (District) is a healthy, safe and enhanced quality of living in Santa Clara County through watershed stewardship and comprehensive management of water resources in a practical, cost-effective and environmentally sensitive manner. The District's core businesses include flood protection and stream stewardship as part of its watershed operations, and water supply under the Water Utility Enterprise. The Water Utility Enterprise provides a safe and reliable water supply to the County's nearly 1.8 million residents. The District's Water Utility budget and rate strategies for fiscal year (FY) 2005–06 are designed to provide revenues to pay the full cost of the Water Utility's operating and capital program.

Table 1-1 shows the water rates in fiscal years 2002–03, 2003–04 and 2004–05. The final column contains the adopted rates for FY 2005–06, which are in accordance with the pricing policy exhibited in Appendix B.

TABLE 1-1
Summary of Water Charges

(Dollars Per Acre-Foot, $/AF)

	2002–03	2003–04	2004–05	Adopted 2005–06
Zone W-2 (North County)				
Basic User Charge	340.00	375.00	405.00	420.00
Treated Water Surcharge				
Contract	80.00	85.00	90.00	90.00
Noncontract*	20.00	45.00	50.00	50.00
Zone W-2 (North County)				
Total Treated Water Charge				
Contract	420.00	460.00	495.00	510.00
Noncontract*	360.00	420.00	455.00	470.00
Zone W-2 (North County)				
Groundwater Charge				
Municipal & Industrial	340.00	375.00	405.00	420.00
Agricultural	34.00	37.50	40.50	42.00
Net Agricultural (With Mobile Lab & INAAP Discounts)	31.50	33.00	34.50	34.50
Zone W-5 (South County/Coyote Valley)				
Groundwater Charge				
Municipal & Industrial	140.00	160.00	200.00	215.00
Agricultural	14.00	16.00	20.00	21.50
Net Agricultural (With Mobile Lab & INAAP Discounts)	11.50	11.50	14.00	14.00
Recycled Water Charges				
Municipal & Industrial	80.00	100.00	125.00	156.00
Agricultural	20.00	25.00	31.00	39.00

***** Treated water is provided only in Zone W-2; the total charge adopted for contract treated water is the sum of $420 plus $90 or $510 per AF. Non-contract water will be available only from the Rinconada Water Treatment Plant in FY 2005–06, but non-contract deliveries will likely be limited during future construction periods.

ADOPTED WATER RATES FOR FISCAL YEAR 2005–06

The District's major sources of revenue are from the imposition of charges on groundwater and from contracts for the sale of treated surface water produced by its three treatment plants. The District assesses the need for groundwater charges annually and in accordance with state law, prepares this report to describe the activities undertaken to provide a water supply, along with the associated capital, maintenance, and operating requirements. The report also describes the financing methods and adopted water charges for zones of benefit established by the District Board of Directors.

During the water rate hearing held in the spring of 2004, various stakeholders said that the projected rate of growth in water rates was too high. District staff responded by analyzing operations and capital budgets that could be accommodated if water rates were not increased in FY 2005–06, and were more moderately increased in future years.

In November of 2004, the state announced that it would shift $51 million of property tax revenues away from the District over a two year time frame. The District had expected the tax shift to be less than half of that amount. Despite this stunning development, a $6.1 million increase in payments for federal Central Valley Project (CVP) water over the FY 2004–05 budget, and a 45 percent increase in chemical costs to treat water, staff continued working toward the objective of eliminating or minimizing the rate of increase needed in FY 2005–06.

Management took several actions in an effort to meet the objective:

1. 20 vacant positions were eliminated from the Water Utility to cut on-going expenses. Operations salaries and benefits were reduced by $1.5 million versus the FY 2004–05 budget.
2. Consultants, supplies, services, and other operations expenses were reduced by $0.5 million compared to the FY 2004–05 budget.
3. Many capital projects were postponed indefinitely, leaving only the most critical projects funded in the near term (see Table 4-3).
4. To help fund capital projects and absorb the impact of the property tax shift, reserves were reduced by $20 million in FY 2005–06.
5. Administrative expenses were cut during the budget process resulting in a reduction in overhead expenses by 10 percent. The Water Utility share of operations overhead was reduced by $2.4 million versus FY 2004–05 budget.
6. The District reached a favorable settlement with the U.S. Bureau of Reclamation over a dispute regarding the costs of imported water from the CVP after several years of talks. This settlement has reduced the projected costs of imported CVP water by approximately $11 million from last year's projection for the three years FY 2005–06 to FY 2007–08.

During discussions with the District's water retailers committee, the Santa Clara Valley Water Commission and the District Board's Landscape Advisory Committee, key stakeholders generally supported an increase in FY 2005–06. This would establish a smoother rate projection trajectory, and provide better financial stability, which would help preserve the District's ability to maintain a clean, safe, and reliable water supply. Furthermore, during more detailed discussions with the water retailers finance subcommittee, staff received feedback that almost unanimously supported an increase in FY 2005–06 in return for adding back several higher priority capital projects that would improve or help maintain water supply reliability. Consequently, staff recommended an increase in the rates for FY 2005–06 for all of the reasons mentioned above by the key stakeholders.

As shown in Table 1-1, the Board adopted a $420 per acre-foot (AF) groundwater charge for municipal and industrial (M&I) water in the North County for FY 2005–06, a 3.7 percent increase versus prior year, but $15

per AF lower than the previous year projection. For South County/Coyote Valley, the Board adopted a $215 per AF groundwater charge for M&I water for FY 2005–06, a 7.5 percent increase versus prior year, but $25 per AF lower than the previous year projection. As in recent years, the Board set the rates for agricultural water at 10 percent of the M&I rates. The water rate increases for FY 2005–06 are necessary to offset the increase in CVP payments.

The Board adopted staff's recommendation to maintain the surcharge on treated water delivered under the contracts with retail agencies at $90 per AF. The District has the discretion to make available treated water in excess of the retailers' basic contract amounts, so-called noncontract treated water, "… at such times and such prices as determined by the District." The availability of noncontract deliveries will be suspended when necessary to accommodate construction activities scheduled for Rinconada Water Treatment Plant (RWTP). The amount of the surcharge on noncontract water affects the retailers' decisions on whether to pump groundwater or purchase treated water. For FY 2005–06, the Board adopted staff's recommendation to maintain the surcharge on noncontract water from RWTP at $50 per AF.

The Board decided to increase agricultural discounts to $7.50 per AF, for qualified agricultural users. A discount for users of the District's Mobile Lab program will increase to $3.75 per AF. Likewise, the discount available to eligible growers for the In-field Nutrient Assessment Assistance Program (INAAP) will increase to $3.75 per AF. Growers in Zone W-5 who have qualified for both programs would see their net rate remain at $14.00. See Section 3 for further details on the achievements of the Mobile Lab program and INAAP.

Rolling Three-Year Rate Intention

The Board did not adopt the proposed rolling three-year intention, citing several reasons. First, the Board expressed concern over postponing the funding of the capital projects listed on Table 4-3. Second, the Board expressed concern that the state might attempt to continue the property tax shift beyond FY 2005–06 when it is slated to end. Finally, the Board indicated a desire to explore permanently reallocating annual property taxes away from the water utility fund.

North County Rate Issues & Analysis

North County (Zone W-2) is generally defined as the portion of Santa Clara County north of Metcalf Road. Projected imported water payments for the Central Valley Project are lower than previously expected because of a recent settlement with the U.S. Bureau of Reclamation (USBR). Nevertheless, on a year to year basis, the cost is budgeted to increase by $5.4 million, or 34 percent in FY 2005–06. This increase is the result of transitioning from lower "contract" rates to higher "cost of service" rates triggered by contract renewal. Note that although the District has a choice whether to renew the contract, not renewing would also result in the transition to higher "cost of service" rates, plus the District would immediately owe approximately $18 million in penalty surcharges.

The impact of the property tax shift on North County is $1.5 million in FY 2004–05 and $12.6 million in FY 2005–06. Approximately $11.1 million of the FY 2005–06 impact will take the form of a transfer from Water Enterprise fund reserves, which were sourced by property tax revenues in past years.

As discussed earlier, management took several actions to try and flatten the rate trajectory and respond to the challenges mentioned above. Those actions, which included cuts in staffing and overhead, and postponement of capital projects, contributed to a financial plan that allows staff to project $15 per AF increases in the North County M&I rate over the next 3 years, or an average of 3.6 percent per year. This is a significant reduction compared to last year's 8.3 percent per year rate of increase over the same three year period.

South County/Coyote Valley Rate Issues & Analysis

South County/Coyote Valley (Zone W-5) is generally defined as the portion of Santa Clara County south of Metcalf Road, including Coyote Valley, Morgan Hill, San Martin and Gilroy. Over the past three years (FY 2002–03 to 2004–05), the District has significantly expanded its operational activities in this zone in the areas of recycling, water conservation, asset management, security, and groundwater quality management. In addition, the FY 2004–05 budget included a $0.7 million increase in the payment for imported water from the CVP. Payments for imported water from the CVP will increase another $0.7 million, or 45 percent in FY 2005–06 for the same reasons explained in the North County analysis. The revenue impact of the property tax shift on South County/Coyote Valley is a decrease of $0.4 million in FY 2004–05 and $0.5 million in FY 2005–06.

In 2003, the District initiated an aggressive strategy to respond to the perchlorate contamination found in the Llagas Subbasin. The strategy calls for spending $2 million to $3 million per year over the next several years in an effort to restore the quality of the groundwater in the subbasin. The District continues to fund perchlorate-related costs from Water Utility reserves and federal grants. The adopted rates do not include recovery of the perchlorate clean-up program costs. Staff is tracking the costs of the perchlorate response program separately in an effort to obtain full reimbursement. If the District is not successful in obtaining full reimbursement, the cumulative revenue shortfall in South County/Coyote Valley would worsen.

On a positive note, the cumulative South County/Coyote Valley revenue versus cost balance was credited $3.7 million at the end of FY 2002–03. The District established a contingent reserve to pay for accumulating unpaid costs for Central Valley Project water during the 1990's. The South County/Coyote Valley contributed its proportionate share to the reserve over several years as the District's deficit grew. At the present time, it does not appear that the Bureau Repayment Reserve will be needed to pay the accumulated CVP deficit, as originally intended. Consequently, staff credited the South County/Coyote Valley for the $3.7 million it contributed through FY 2002–03 and recalculated the historical running balance of revenues versus costs. The change resulted in a balance of positive $3.6 million at the end of FY 2002–03 versus a deficit of $0.1 million.

The South County/Coyote Valley operations and capital cost projections were reduced significantly due to the management actions described earlier. The net result of this year's water rate study is that staff is projecting $15 per AF increases in the M&I rate over the next three years, or an average of 7 percent per year. This is a significant reduction compared to last year's projected 17 percent per year rate of increase over the same three year period. Under this projection, annual costs would exceed annual revenues for the next few years and the cumulative revenue shortfall would not be balanced until FY 2012–13.

Ten-Year Rate Projection

Figure 1-1 shows the ten-year rate projection for groundwater charges for M&I users. The dashed lines reflect last year's rate projection for comparison purposes. For both zones, the difference between the current year projection and the prior year projection is the impact of the management actions taken to reduce or defer costs.

Operations costs have been reduced by $15 million to $20 million per year over the next 5 years. Some treatment plant maintenance activities will be stretched out increasing the risk of service interruptions. Additionally, responding to requests for water measurement services will take longer. Completion of plans and studies related to recycled water and groundwater supply will be extended. Water conservation research, studies and pilot projects on innovative/new technologies will be postponed. The asset management program implementation will be slowed, and consequently the full extent of risk due to the aging of our infrastructure will remain unknown.

The capital cost projection was scrutinized according to priority. Higher priority projects in the capital projection include the water treatment plant improvement projects, high priority asset management and system improvement projects, and an investment in increased water banking storage capacity which was not in last year's projection (details are at the end of section 3). However, the prioritization process resulted in the deferral of more than $203 million (uninflated) worth of capital projects over the next 10 years in an effort to flatten the rate trajectory. These lower priority capital needs include:

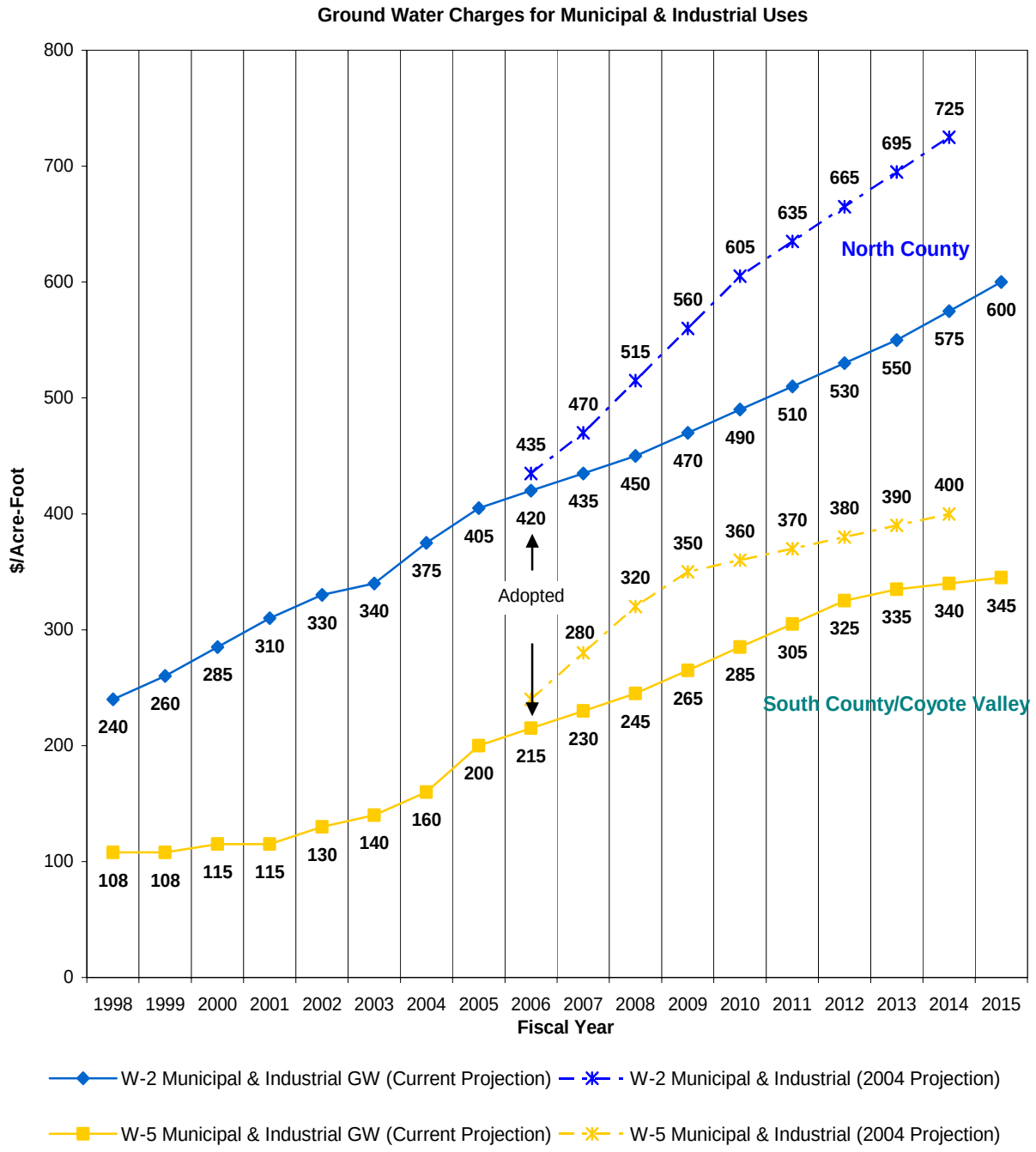
1. Several planned projects listed in the District's Capital Improvement Plan (CIP), which are identified in Section 4.
2. Placeholder estimates in the CIP for recharge pond investments identified in the IWRP and lower priority asset management projects.
3. A placeholder estimate in the CIP for the San Luis Reservoir Low-Point Improvement Project construction. Although this is considered an important investment, the timing and the District's share of future costs are uncertain.

Like last year's capital projection, this year's projection does not include estimates for the total costs of infrastructure reliability, the South County Regional Wastewater Authority recycled water master plan and potential investments associated with the development of Coyote Valley or North San Jose. These and other initiatives are in the planning stages and include a wide range of potential program costs and facility investments. Moreover, it is not clear that there is demand among our customers for the District to invest in these projects.

A rate projection with expanded capital scenario for both zones is shown in Figure 1-2 that provides a picture of the potential water rates that would be needed to fund all of the lower priority capital investments that were deferred. In the North County, the scenario is still below last year's projection because of the reductions in operations costs.

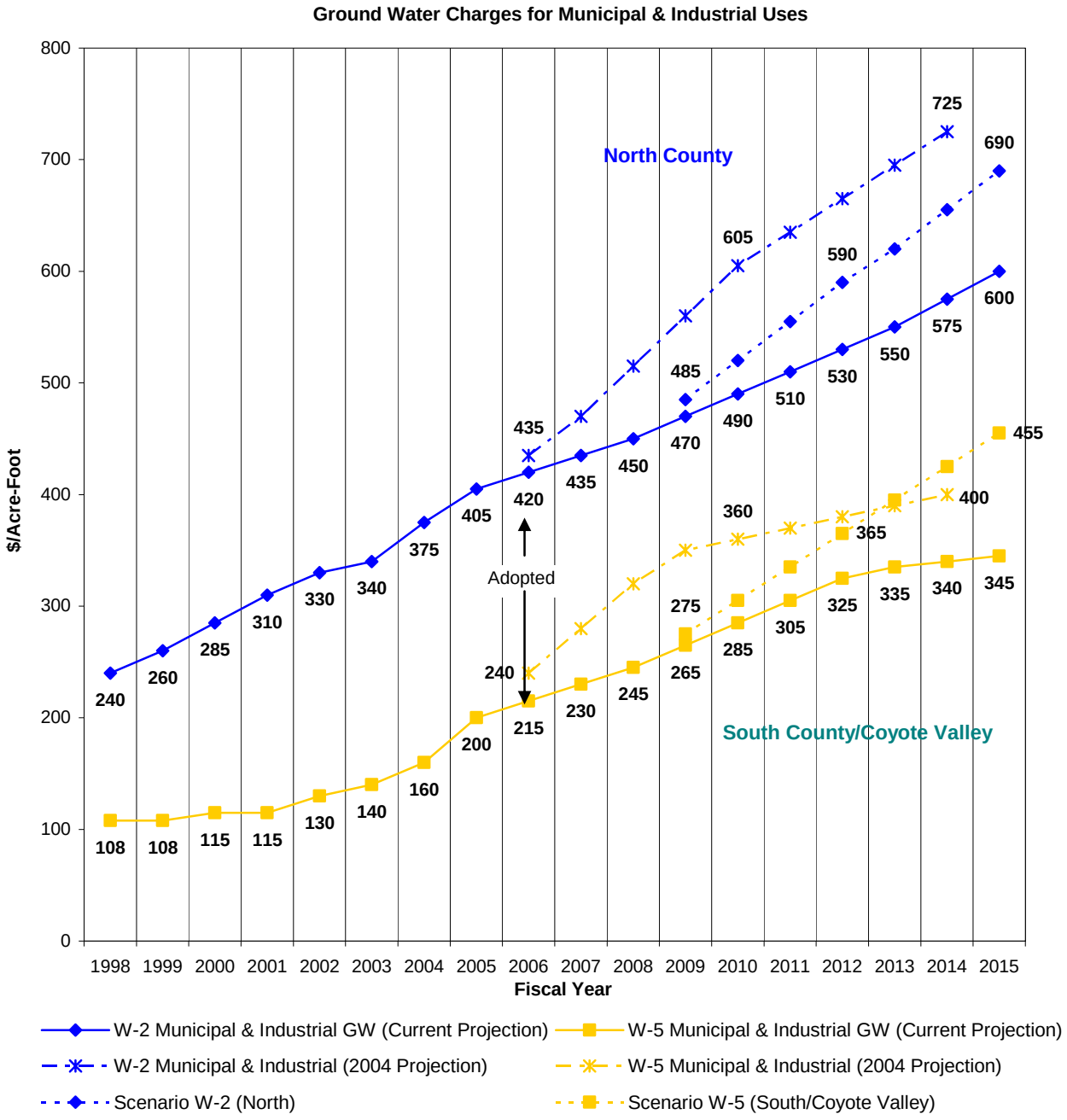
The rate projection with expanded capital scenario for South County/Coyote Valley, however, includes the potential recycled water master plan investments, which were not included in last year's projection. Consequently, the scenario crosses above last year's projection in FY 2012–13. Note that the scenario would balance the cumulative revenue shortfall in FY 2015–16 while the current projection would balance the shortfall in FY 2012–13. The delay in balancing the cumulative revenue shortfall in the scenario is due to the gradual increase of rates in order to avoid large, potentially disruptive increases.

FIGURE 1-1
Ten- Year Rate Projection



Note: The current rate projection includes high priority capital only. Postponed capital projects are excluded.

FIGURE 1-2
Ten- Year Rate Projection with Expanded Capital Scenario



Note: The W-2 and W-5 scenarios include postponed capital projects. In addition, the W-5 scenario includes the potential Recycled Water Master Plan investments.

SUMMARY

Section 2

Section 2 presents data on the County's water supply and water usage. Water supply records indicate a somewhat stable trend over the past three calendar years, 2003 through 2005. Water use in calendar year 2004 was greater compared to 2003. In 2003, water usage was recorded at 367,200 AF, and in 2004, at 381,100 AF. Water use in 2005 is projected to increase slightly to 390,530 AF.

Section 3

Section 3 describes water supply and quality challenges facing the Water Utility and the District activities to address them. The activities exhibit the District's continuing efforts to conserve and augment its water supplies and are the primary reason for the need for water charges. Capital projects at the forefront of the District's plans in FY 2005–06 include continuing construction at Santa Teresa and Penitencia. Rinconada Stage 2 is scheduled to begin in September 2007.

Section 4

Section 4 discusses the revenue required to meet needs in FY 2005–06 and describes the financial analysis for the two water charge zones. This section also includes a projection of the Water Utility finances over the next 10 years. For FY 2005–06, the District plans to invest primarily in Water Banking, Water Infrastructure Baseline Improvement, and Stage 2 of the Santa Teresa and Penitencia Water Treatment Improvement Projects. The overall revenue requirement for FY 2005–06 is projected to be $179.6 million. The Water Utility requirements will be met from a combination of current revenues, reserves, and debt.

For FY 2005–06, North County and South County/Coyote Valley water rates were adopted to be less than the level that was projected last year. As illustrated in the Figure 1-1, North County groundwater rates are currently projected to increase at an average of 3.6 percent per year between FY 2005–06 and FY 2007–08. South County/Coyote Valley groundwater rates are projected to increase at an average of 7.0 percent per year during the same time frame. The total incremental revenue between FY 2005–06 and FY 2014–15 will be used to fund increased operating costs driven by steep increases in the cost of federal water and higher water treatment costs as a result of converting to the use of ozone as the primary disinfectant. Higher rates are also needed to pay debt service on capital expenditures currently underway and future construction at reservoirs and water treatment plants.

2. SANTA CLARA COUNTY WATER REQUIREMENTS AND SUPPLIES

LONG-TERM WATER USE TRENDS

Water use in the County is categorized as either agricultural or municipal and industrial (M&I). Recorded North County water use since FY 1964–65 and South County/Coyote Valley water use since FY 1987–88 (when the District merged with Gavilan Water Conservation District) is shown in Figures 2-1 and 2-2, respectively. Metcalf Road is the dividing line between North County Zone W-2 and South County/Coyote Valley Zone W-5 (see map of Water Utility Zones in Appendix C). South County/Coyote Valley, Zone W-5 includes Coyote Valley, Morgan Hill, San Martin and Gilroy.

Both District and non-District water use in North County, as shown in Figure 2-1, is predominantly M&I. Projections from the District's 2003 Integrated Water Resources Plan (IWRP 2003) indicate an increase in M&I use through 2020, when the North County annual M&I water use is projected to be 354,000 acre-feet (AF). Agricultural water use is expected to be approximately 1,000 AF per year by the year 2020 in North County, or less than one percent of the total North County water use.

In South County/Coyote Valley, it is anticipated that M&I water use will continue to increase while agricultural use is expected to decline (see Figure 2-2). The latest projections for South County/Coyote Valley anticipate total water use of about 72,000 AF by the year 2020. M&I and agricultural water uses are projected to be 45,000 AF and 27,000 AF that year, respectively.

The projected water usage for the County discussed above totals 427,000 AF in 2020. This represents the likely outcome of many factors, including population trends, employment growth, and water conservation practices. The District's Urban Water Management Plan (April 2001) describes alternative population and economic assumptions that could lead to total County water needs ranging from as low as 416,000 AF to as high as 478,000 AF in 2020. Revised total County water usage numbers will be available in December 2005, when the 2005 Urban Water Management Plan is filed with the California Department of Water Resources.

The drought and economic downturn during the early 1990s drove a decrease in the County water use from 1987 to 1991. District records show the total per capita water use was 231 gallons per day in 1988. By 1991, the per capita use dropped steadily to 171 gallons per day. Once drought conditions and the economic recession eased, the County began a general upward trend in water consumption from 1992 to 1997. For this time period, the per capita water use gradually increased from 182 gallons per day to 210 gallons per day. Water use dropped to 185 gallons per capita per day in 1998 due in part to unusually wet weather early in the year, which helped reduce demand for water used in agriculture and landscaping. Since 1998, per capita water use gradually increased to 199 gallons per day in 2002. In 2003, per capita water use decreased to 190 gallons per day, because of above average rains in early spring. In 2004, it increased back to the 195 gallons per day level.

LONG-TERM WATER SUPPLY OUTLOOK

The District's water supply includes water imported from the Sacramento-San Joaquin Delta, local water stored in reservoirs and groundwater subbasins, water banked in San Joaquin Valley, and recycled water. The Santa Clara groundwater subbasin is in the North County, while both the Coyote and Llagas groundwater subbasins are in South County/Coyote Valley (see Groundwater Subbasins and Major Recharge Systems Map in Appendix C).

Sources of water supply in North County consist of locally developed water, recycled water, and water imported via the State Water Project (SWP), the federal Central Valley Project (CVP), and the city and county of San Francisco's Bay Division Pipelines (Hetch Hetchy). South County/Coyote Valley is supplied by locally developed water, recycled water, and CVP water imported via the San Felipe Division. The recorded water supply taken in North County since FY 1964–65 is shown in Figure 2-3, and South County/Coyote Valley since FY 1987–88 is shown in Figure 2-4. Projected supplies of local, recycled and imported water are shown to the year 2020. Projected supply availability figures are based on the long term average (LTA) supply projections to the year 2020 presented in the District's ongoing IWRP. According to the Urban Water Management Plan, the LTA supply is defined as the average supply available over the historic hydrological record, given currently existing facilities. For imported water supplies, this is the average supply the District could expect with currently existing facilities and contractual demands over the historical hydrology from 1922 through 1990, with current environmental regulations in place. By comparing the recorded historical water supply taken to the projected LTA of available supply, it can be seen that the District is often unable to use all of the imported water available in an average year.

In working toward ensuring a reliable future water supply, the District is engaged in several activities. Within the county, the District continues its conjunctive use program of recharging surface water to augment groundwater supplies. Additionally, the District is providing financial incentives to wastewater agencies for delivery of recycled water for nonpotable uses and has signed a partnership agreement with the City of San Jose to explore the future development of recycled water. Local supplies will continue to be supplemented in the future with nonpotable water from recycled water facilities in San Jose, Sunnyvale, and the South County Regional Wastewater Authority (SCRWA) serving Gilroy and Morgan Hill.

The District, along with numerous other urban water agencies, is participating in the statewide Water Conservation Memorandum of Understanding to implement 16 urban water use best management practices (BMP). In addition, the District manages urban water use conservation programs beyond the BMPs and is implementing agriculture water conservation practices as required under the CVP Improvement Act (CVPIA). These activities are more fully described in Section 3, Benefits and Services Provided by the District.

DISTRICT WATER SUPPLIES AND USE

The following tables show calendar year activities for 2003 and 2004 and the plan for calendar year 2005 reservoir operations, raw water conveyance, treated water production, and groundwater recharge. Table 2-1 summarizes water use recorded and projected in the County for calendar years 2003, 2004 and 2005. Table 2-2 documents District and non-District annual water supply and distribution management activities, Table 2-3 summarizes District out-of-county water banking activities for those three years, and Table 2-4 summarizes the District's Environmental Water Account agreements. The differences between Tables 2-1 and 2-2 can be accounted for by changes in surface water and groundwater storage. Moreover, Table 2-2 summarizes only those supplies managed by the District or other agencies. The groundwater basin is also replenished by naturally occurring recharge in areas not managed by the District or others.

FIGURE 2-1
North Santa Clara County Water Use
Zone W-2

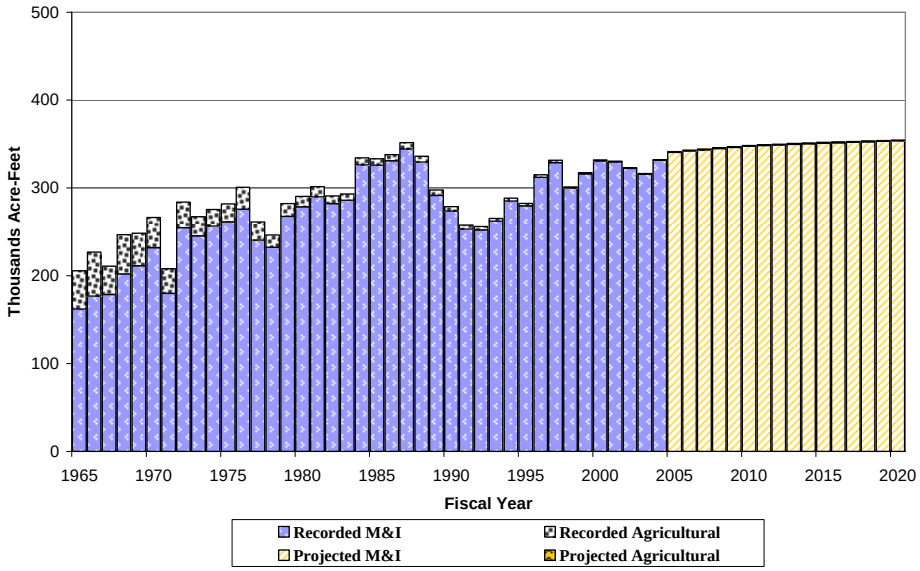


FIGURE 2-2
South Santa Clara County/Coyote Valley Water Use
Zone W-5

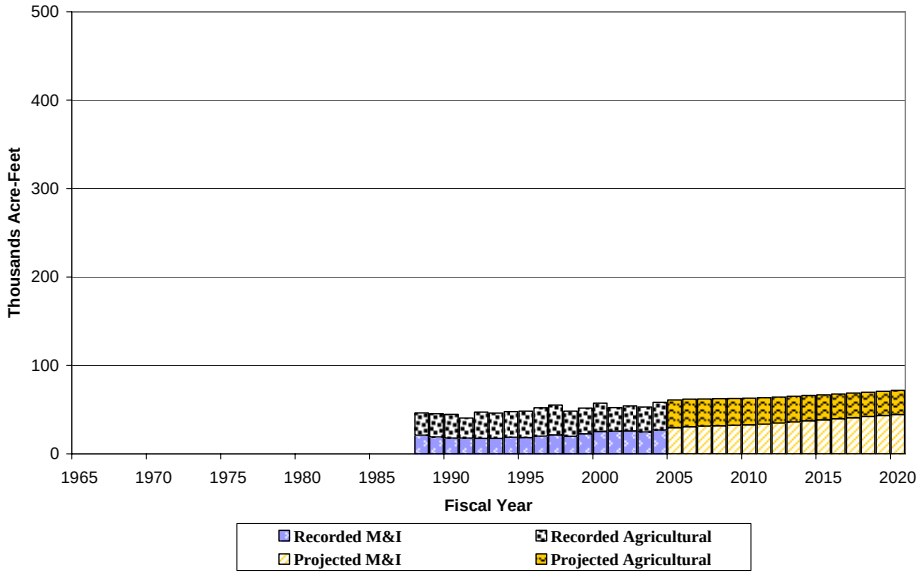


FIGURE 2-3
North Santa Clara County Water Supply
Zone W-2

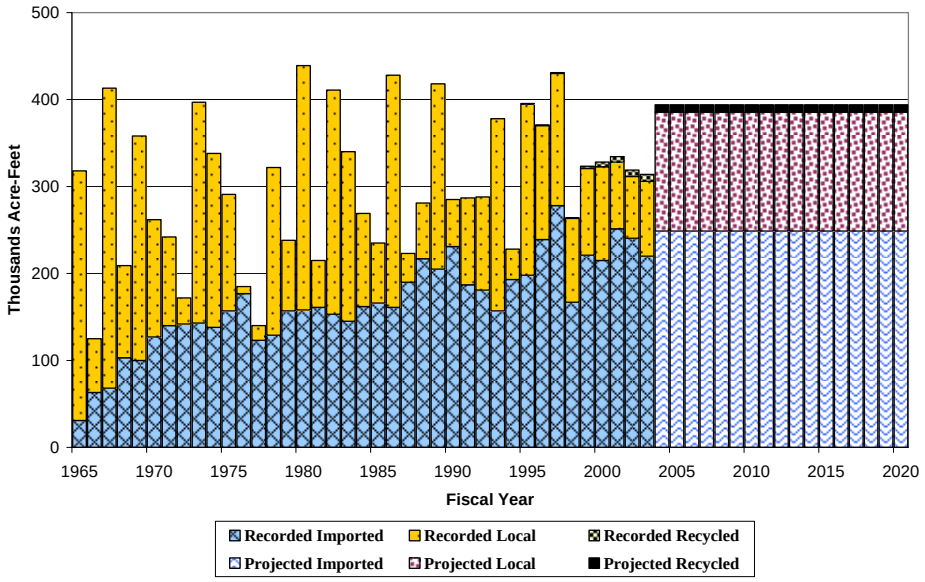
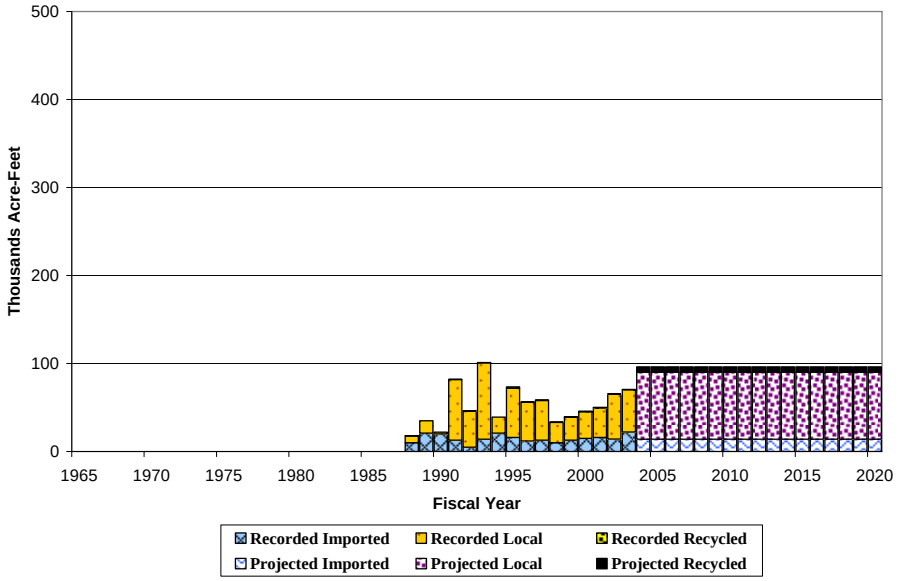


FIGURE 2-4
South Santa Clara County/Coyote Valley Water Supply
Zone W-5



Note: North County and South County/Coyote Valley projected supply *availability* figures are based on the long term average (LTA) of allocated entitlement presented in the District's Integrated Water Resources Plan (IWRP). Recorded supply figures reflect the amounts of supply *taken*. Supplies *taken* are often less than the supplies *available* due to system capacity limitations. Supplies that are not taken in a single year are carried over, banked out of county, exchanged, or sold.

TABLE 2-1
Water Use for Calendar Years 2003 Through 2005 (Acre-Feet)
Santa Clara County

	Actual 2003	Actual 2004	Projected 2005
I. WATER PRODUCTION			
In-District Groundwater Pumping	146,900	158,600	163,400
District Treated Water	130,600	134,600	138,800
District Surface Water Irrigation	3,000	3,500	3,200
Recycled Water	600	600	730
Non-District (Import, Local, & Recycled)	86,100	83,800	84,400
TOTAL WATER PRODUCTION	**367,200**	**381,100**	**390,530**
II. WATER USE			
District Municipal & Industrial	253,500	267,800	271,350
District Agricultural	27,600	29,500	34,780
Non-District (Import, Local, & Recycled)	86,100	83,800	84,400
TOTAL WATER USE	**367,200**	**381,100**	**390,530**

Recorded Operations for Calendar Year 2003

In 2003, the total water use in the County was 367,200 AF. Rainfall in the 2003 calendar year totaled 13.62 inches in downtown San Jose, about 94 percent of average. Water use from District sources included 253,500 AF of M&I and 27,600 AF of agricultural water. Non-District use totaled 86,100 AF provided by non-District sources (Hetch Hetchy, Stanford and San Jose Water Company reservoirs, and recycled water deliveries). Of the District water used, 146,900 AF were provided through groundwater pumping, 600 AF through recycled water produced by SCRWA, and 130,600 AF were delivered from our three water treatment plants. In addition, 3,000 AF were delivered from surface waters for direct use. Table 2-1 presents a detailed look at the in-county water demand.

Table 2-2, which excludes natural recharge, depicts how the water supply was managed and distributed in 2003. The District imported approximately 182,500 AF of water from SWP and CVP and released approximately 83,200 AF from its reservoirs for groundwater recharge or treatment in one of our three treatment plants. The remainder of the District demand was met with natural recharge or carryover storage from our groundwater basins.

TABLE 2-2
Annual Water Supply And Distribution For Calendar Years 2003 Through 2005 (Acre-Feet)
Santa Clara County

Water Supply	Actual 2003	Estimated 2004	Projected 2005
I. ANNUAL WATER SUPPLY			
District Supply			
Imported Water To County			
SFWD Intertie	-	-	-
CVP Imports	106,400	127,800	99,300
State Water Project Imports	76,100	59,400	57,500
Total District Imports	182,500	187,200	156,800
Local Surface Water	83,200	76,400	153,100
SCRWA Recycled Water	600	600	730
Non-District Supplies			
Hetch Hetchy	59,500	60,700	60,400
Other Reservoirs and Streams (SJWC and Stanford)	18,400	13,700	13,500
Other Recycled Water	8,200	9,400	10,100
TOTAL	**352,400**	**348,000**	**394,630**
II. DISTRIBUTION OF ANNUAL WATER SUPPLY			
Distribution Within District System			
To Treated Water	130,600	134,600	138,800
To Surface Water: Irrigation/Environment	25,900	31,300	60,100
Recycled Water to Irrigation	600	600	730
To Managed Recharge			
Santa Clara Groundwater Subbasin	74,200	66,700	77,400
Coyote & Llagas Groundwater Subbasins	35,000	31,000	33,600
Subtotal of Distribution to District System	**266,300**	**264,200**	**310,630**
Non-District Distribution			
Hetch Hetchy	59,500	60,700	60,400
San Jose Water Co. and Stanford	18,400	13,700	13,500
Other Recycled Water	8,200	9,400	10,100
Subtotal of Non-District Distribution	**86,100**	**83,800**	**84,000**
TOTAL	**352,400**	**348,000**	**394,630**

Note: The annual water supplies reported in this table include only volumes managed by the District and others that are readily estimated. CVP import supplies exclude sales and transfers to the Environmental Water Account and Westlands Water District. SWP import supplies exclude amounts banked at Semitropic Water Storage District due to the fact that these activities take place outside of Santa Clara County. In addition to the managed recharged data included in the table, County groundwater supplies are augmented by naturally occurring recharge each winter and spring. These "unmanaged" amounts are essential to County groundwater supplies and allow for the fact that the in-District groundwater pumping volumes in Table 2-1 usually exceed the annual managed recharge.

Estimated Operations for Calendar Year 2004

In 2004, the total water use in the County is estimated to be 381,100 AF. Rainfall in the 2004 calendar year was 13.88 inches in downtown San Jose, which is approximately 96 percent of average. Total water use included 267,800 AF of M&I and 29,500 AF of agricultural water. It also includes 83,800 AF provided by non-District sources (Hetch Hetchy, Stanford and San Jose Water Company reservoirs, and recycled water deliveries). Of the District water used, 158,600 AF was provided through groundwater pumping, 600 AF from recycled water, and 134,600 AF was delivered from our three water treatment plants. In addition, 3,500 AF was delivered from surface waters for direct use. Table 2-1, which includes supplies available from natural recharge, presents a detailed look at the in-county water demand in 2004.

Table 2-2, presents how the water supply was managed and distributed in 2004. The District imported approximately 187,200 AF of water from the state and federal Water Projects. Water releases from District reservoirs totaled approximately 76,400 AF for delivery to groundwater recharge ponds or one of our three treatment plants. SCRWA produced 600 AF of recycled water. The remainder of the District demand was met with natural recharge or carryover storage from our groundwater basins.

Projected Operations for Calendar Year 2005

The District's annual Operations Plan describes how supplies available to Santa Clara County will be used. A preliminary plan based on conditions known in June 2005 is summarized in Table 2-2. As of July 1, 2005, the 10 District reservoirs had a combined storage of approximately 142,400 AF, or about 84.3 percent of capacity, compared to 56.2 percent in July 1, 2004. Over the last twenty years the 10 District reservoirs averaged 97,200 AF in storage on July 1.

Imported water supplies are currently projected to be less than the District's contractual entitlements. On May 27, 2005, the Department of Water Resources (DWR) announced that 90 percent of the SWP entitlement of 100,000 AF will be available to the District. And, on May 18, 2005, the USBR announced allocations of 85 percent of the 33,100 AF of CVP agricultural water, and 85 percent of the 119,400 AF of CVP M&I water entitlements. This results in a total supply of approximately 129,625 AF of CVP water (compared to a five-year average of 121,400 AF) and 90,000 AF of SWP water (compared to a five-year average of 70,800 AF), for a total of 219,625 AF of available imported water.

In addition to the imported water allocation, the District is also expected to receive 11,800 AF of carryover and 12,600 AF of transfers or other imported water in 2005. Of the available imported water supply amount of 244,025 AF, the District plans to use 156,800 AF in county this year. The overage will either be taken as carryover the next year, transferred, exchanged, or banked. In addition to imported water, the annual water supply is made up of 153,100 AF of local water supply and 730 AF of recycled water.

The District's 2005 Operation Plan provides projections of how District-managed water (locally conserved and imported water) will be distributed to efficiently use recharge facilities and provide treated water to meet demands. Table 2-2 shows the planned distribution of the projected supplies to Santa Clara County from District managed and non-District sources (Hetch Hetchy, recycled water and San Jose Water Company and Stanford stored surface water) of 394,630 AF for 2005.

Imported Water Operations

Water Reallocation Agreement

In 1997, the District executed a Water Reallocation Agreement with the USBR and agricultural districts in the San Luis and Delta-Mendota Water Authority that establishes the basic level of reliability for the District's CVP M&I water supplies. This 25-year agreement resolved disputes related to the USBR's M&I Water Shortage Policy that provides CVP M&I water allocations of no less than 75 percent of historic use under most shortage conditions. In addition, Westlands and San Luis water districts agreed to augment the District's supplies in certain years to bring District CVP M&I reliability up to 75 percent of contract amount. In return, the District has reallocated 100,000 AF of CVP water to the agricultural districts, and will continue to optimize water supplies to reallocate more water if possible over the term of the agreement.

Water Banking

To provide reliability in future years, the District banks water in groundwater storage outside of the County. This involves conveyance of the District's state or federal water supplies to a banking partner, another water district that operates a groundwater conjunctive use program. Storage in the bank occurs when water is physically delivered to ponds to soak into the aquifer, or when surface water deliveries are used by the banking partner in lieu of groundwater pumping ("in-lieu recharge"). Return of stored water is accomplished when the banking partner uses groundwater in place of surface supplies, or physically pumps groundwater into the surface conveyance system. The District primarily banks SWP water at the Semitropic Water Storage District in Kern County. Table 2-3 shows the annual changes and year-end balances for banked water during calendar years 2003 through 2004, and the projected activity in 2005.

TABLE 2-3
District Water Banking for Calendar Years 2003 Through 2005
(Acre-Feet)

Water Banking	Actual 2003	Actual 2004	Estimated 2005
SEMITROPIC WATER STORAGE DISTRICT (SWP WATER)			
Beginning Balance (January 1)	114,757	144,457	144,457
District Deposit or Withdrawal	33,000	0	48,124
Environmental Water Account (EWA) Withdrawal	0	0	0
Transaction Losses (e.g., Evaporation)	-3,300	0	-4812
TOTAL BANKED ENDING BALANCE (DECEMBER 31)	**144,457**	**144,457**	**187,769**

Water Exchanges

In recent years, the District has exchanged CVP allocations with San Benito Water District, in order to improve water management by taking advantage of a difference in each district's contract year. The District purchases water for San Benito in summer months in return for San Benito returning a like amount, usually about 14,000 to 15,000 AF to the District in January and February. This agreement allows the District to "hedge" against the CVP allocating a reduced supply in the following contract year. The District also works with exchange partners in the San Joaquin Valley who are CVP contractors. In 2004, a total of 7,000 AF was exchanged.

Water Transfers

The District uses temporary or "spot market" water transfers to manage year-to-year variability in CVP and SWP supplies, and to reduce overall costs of the imported water program. In 2004, the District purchased 3,100 AF of transfer water. In prior years, the District has sold water to the CALFED Bay-Delta Program's Environmental Water Account (EWA). Table 2-4 summarizes recent EWA transactions. In 2005, the District also expects to complete the sale of 10,000 AF of CVP water to federal wildlife refuges. These sales help offset the cost of spot market purchases.

TABLE 2-4
Environmental Water Account Agreements for Calendar Years 2003 Through 2005
(Acre-Feet)

Terms (In AF)	Actual 2003	Actual 2004	Estimated 2005
Sale of Water from District to EWA	20,000	-	23,804

Note: Source of water for sales include the District's Semitropic storage or excess imported water from CVP.

The District also has one small long-term water transfer agreement, a CVP agricultural water service contract for 6,260 acre-feet that is shared jointly with Westlands Water District and Pajaro Valley Water Management Agency. Under this 1999 agreement, the District has the "right of first refusal" in every year to the allocated supply, but is limited to 25 percent of the total supply allocated over the first 20 years. The District exercises its right in dry years, and has so far taken delivery only once (4,300 AF).

3. BENEFITS AND SERVICES PROVIDED BY THE DISTRICT

Section 26.5 of the District Act specifies that this annual report provide details on the District's "...activities in the protection and augmentation of the water supplies of the district." Protecting available resources and planning for and augmenting future supplies requires that the District levy charges on the production of groundwater and enter into financial contracts for the delivery of treated surface water. The importation of water and management of local water supplies require that the District undertake a wide range of supporting functions.

The description of District activities has been organized by the Board's Ends Policies, which instruct the CEO to achieve certain results for certain recipients at a specified cost. These policies and related costs are reflected in the programs and projects budgeted in the Water Utility Enterprise. Ends Policy E-1 embodies the District's overarching mission to provide "a healthy, safe, and enhanced quality of living in Santa Clara County through watershed stewardship and comprehensive management of water resources in a practical, cost-effective, and environmentally sensitive manner." All of the subsequent Ends policies are described at a general level and also at more defined levels. They were adopted to direct the CEO as to their intended results, organizational products, impacts, benefits, outcomes, recipients, and relative worth.

This section describes the Board's Ends Policies as well as benefits and services that the District's Water Utility Enterprise provides to carry them out. These benefits and services are presented under the general headings of:

- Ends Policy E-2 (Healthy & Safe Environment)
- Ends Policy E-3 (Enhanced Quality of Life)
- Ends Policy E-4 (Positive District Image)
- Capital Improvements (Infrastructure to Support all Ends Policies)

ENDS POLICY E-2

Ends Policy E-2 states, *"There is a healthy and safe environment for residents and visitors."* This policy strives to accomplish two goals. The first goal is to provide a reliable supply of healthy, clean drinking water. The second goal is to provide reduced potential for flood damages. The Water Utility Enterprise is responsible in whole or in parts for the first goal. The programs that endeavor towards this goal and the specific ends policy(ies) that they are designed to fulfill are as follows:

Water Quality Protection

The District is responsible for protecting surface and groundwater resources for use in the County. Water quality programs include: (1) treating local and imported surface water for sale to retailers, (2) protecting surface and groundwater resources from contamination, and (3) participating in a CALFED-sponsored Bay Area Regional Blending/Exchange Study to investigate opportunities for water quality improvements through partnership in regional facilities or exchanges. Water treatment is necessary to ensure that the water the District provides meets or exceeds all federal and state drinking water standards. *(Ends Policy 2.1.1)*

Treated Water Operations

The District owns and operates three water treatment plants: Santa Teresa Water Treatment Plant (STWTP), Rinconada Water Treatment Plant (RWTP), and Penitencia Water Treatment Plant (PWTP), which provide high-quality treated water to the residences and businesses in Santa Clara County. The treatment plants

utilize conventional treatment process of flocculation, sedimentation, filtration, and disinfection to provide high-quality water. The treatment plants are in the process of adding advanced treatment technologies, including ozone as the primary disinfectant, in order to continue ensuring high-quality drinking water that meets drinking water standards. STWTP and PWTP are expected to bring their ozone upgrades on line later this year.

In an effort to use more environmentally friendly chemicals, the District's water treatment plants have switched the corrosion inhibitor they use, from a zinc orthophosphate to a non-zinc orthophosphate product, phosphoric acid. Corrosion inhibitors are added to the water leaving the District's water treatment plants in order to reduce corrosion in the distribution system and customers' piping. Keeping corrosion in control ensures lead and copper levels in customers' tap water comply with the Federal Lead and Copper Rule. The move to the non-zinc product has the Green Business benefit of reducing zinc loading to the local wastewater treatment plants, and ultimately the amount of zinc discharged into the San Francisco Bay.

Reflecting its commitment to provide the highest quality water possible, the District was among the first water utilities nationwide to join the Partnership for Safe Water in 1995 (Partnership). The Partnership is a voluntary program developed cooperatively by the United States EPA, the American Water Works Association, the Association of State Drinking Water Administrators, and several other national drinking water industry organizations. The purpose of the program is to further reduce the potential risks to consumers from microbial contaminants such as cryptosporidium and giardia. The District has consistently surpassed the Partnership's goal for filtered water turbidity, a critical indicator of plant performance. *(Ends Policy 2.1.1)*

Hydrologic Data Management

The District supports numerous data collection and analysis efforts covering rainfall, stream flows, reservoir storage, water use, groundwater levels, and other information that is essential to planning and operating our water distribution and delivery system. *(Ends Policy 2.1)*

Surface Water Transportation and Storage

Water supply reliability includes both the availability of the water itself as well as the reliability and integrity of the infrastructure and systems that transport and store it. Thus, all activities related to operating and maintaining the District's dams, reservoirs, canals, and pipelines are directly related to providing water supply.

District facilities are subject to regulation regarding seismic performance of dams, reservoir landslide monitoring and evaluation, and periodic field inspections. Consequently, maintenance activities include continuing liaison and data exchange with the California Division of Safety of Dams and the Federal Energy Regulatory Commission with regard to the safety of District dams. *(Ends Policy 2.1.2)*

Imported Water

The SWP, CVP, and city and county of San Francisco's Hetch Hetchy Project provide approximately 60 percent of water supplies in average years to the County. Imported water is conveyed to the County through the South Bay Aqueduct, which carries water from the State Water Project; the federal San Felipe Division's Santa Clara Conduit, which brings water from the CVP; and the Hetch Hetchy Aqueduct, which brings water from the Hetch Hetchy Reservoir in the Sierra Nevada Mountains.

Management of the imported water program includes protecting the District's assets (CVP, SWP, and other contract rights); meeting current year operational needs for imported supplies; developing water transfers, exchanges and banking agreements to support the Integrated Water Resources Plan; and controlling costs. Annual imported water purchase costs are approximately $39 million, a significant portion of the Water Utility

budget. Controlling these costs involves close monitoring of appropriate state and federal budgets, cost allocations, and charges for the CVP and SWP, and related CALFED programs. Financial issues frequently arise that must be resolved through negotiation among contractors and the project agencies, administrative procedures, and sometimes legislation or litigation. In addition, if there is no conflict with water reliability goals, the District offsets costs by using imported water assets to generate revenue. The District has sold wet-year water and provided temporary storage options to the Environmental Water Account (EWA) in recent years to offset the costs of purchasing water.

Maintaining reliable access to high-quality supplies of imported water is essential to meeting current water needs and to implementing the District's IWRP strategy for future water supplies. Both Board and staff members devote considerable time in three areas: Resolution of Bay-Delta issues through the CALFED process, water banking, and managing CVP and SWP contract issues. Each of these is discussed below. *(Ends policies 2.1.2, 2.1.3 and 2.1.4)*

Resolution of Bay-Delta Issues: (CALFED Bay-Delta Program)

The District imports water through the San Francisco Bay/Sacramento-San Joaquin River Delta Estuary (Bay-Delta) under contracts with the SWP and the federal CVP. The Bay-Delta is the largest estuary on the west coast and supports more than 750 species of plants and wildlife. The Bay-Delta also provides water supply to more than two-thirds of the population in the state and to agriculture in the Central Valley and the San Felipe Division. However, decades of competing demands have taken a toll on the Bay-Delta and today it no longer functions as a healthy ecosystem or as a reliable source of water. Regulatory actions to protect threatened or endangered fish have reduced the reliability of Bay-Delta water supplies. Water quality is degraded, making it difficult and expensive to meet drinking water standards. In addition, the vulnerability of Delta levees to seismic and flooding failures threatens both the infrastructure and the quality of California's water supply.

The District plays an active role in resolving these Bay-Delta issues by participating in the state/federal/public CALFED process and other related processes. Since the signing of the Bay-Delta Accord in December 1994, a coalition of state and federal agencies, known as the CALFED Bay-Delta Program, has been developing a plan for resolving Bay-Delta issues in cooperation with environmental, business, urban, and agricultural interests. Legislation in 2002 created a California Bay-Delta Authority to oversee implementation of the Bay-Delta Program.

The District is a leader in garnering broad support for the CALFED Bay-Delta Program. In April 2005, Chief Operating Officer Walt Wadlow was appointed by Interior Secretary Gale Norton and Governor Arnold Schwarzenegger to the Bay-Delta Public Advisory Committee. A successful Bay-Delta resolution is absolutely essential to address California's water problems and to maintain the public welfare and the economic viability of the state.

The CALFED Bay-Delta Program received a major boost in November 2002 with the passage of Proposition 50, a $3.44 billion water bond that provides $825 million for the CALFED Program and $1.3 billion for related projects. This District was an early supporter of Proposition 50, and was also a leader in efforts to secure a long-term federal funding authorization for the CALFED Program. In October 2004, that effort resulted in the passage of a $395 million federal funding authorization for the CALFED Program and other California water projects. Included in the legislation is language authorizing planning and implementation of the San Luis Reservoir Low Point Improvement Project. The project will protect the reliability of CVP deliveries to the District and other San Felipe Division contractors, and make available up to 200,000 AF of additional storage in San Luis Reservoir.

The District supports the CALFED Bay-Delta Program through participation in the Environmental Water

Account (EWA). The purpose of the EWA is "to provide water for the protection and recovery of fish beyond water available through existing regulatory actions…at no uncompensated water cost to [CVP and SWP] water users." As long as the EWA has the prescribed level of "assets" (water supplies) available to it each year, CVP and SWP water users gain assurances from regulatory agencies that protect them from additional water supply losses under the state and federal Endangered Species Act.

In addition, the District supports restoration of the Bay-Delta ecosystem through payments to the CVPIA Restoration Fund. In FY 2004–05, the District will contribute approximately $2 million to this fund.

CALFED is moving forward with its first major package of Delta infrastructure improvements. The "Delta Improvements Package" approved in August 2004 by the California Bay-Delta Authority contains projects to improve Delta water quality and increase Delta water supplies, improve conditions for fish, and protect in-Delta water users. Some elements of the package, including actions to increase the permitted pumping at the SWP's Banks Pumping Plant to 8,600 cubic feet per second, must still complete the environmental review process. Still, the Authority's adoption of the package represented a significant milestone for the CALFED Program. Potential benefits of the package to the District include: more reliable CVP and SWP supplies; near-term protections against the San Luis Reservoir low point; improved Delta water quality, and an extension of the EWA. *(Ends policies 2.1.3 and 2.2.2.2)*

Banking Available Supplies for Future Use

The District's IWRP identified banking of excess supplies in wet years as a central element in the preferred strategy for providing supplies needed in future dry years.

In May 1996, the Board took the first step in implementing the banking strategy when it approved an agreement with Semitropic Water Storage District to store 45,000 AF of State Water Project water. In 1997, the Board approved a long-term agreement with Semitropic. Under the terms of this agreement, the District has banked water in years 1997 through 2005. The District now has over 144,000 AF in storage (See Table 2-3). The total capacity available to the District until January 1, 2006, is 350,000 AF. By that date, the District must decide its permanent level of investment in Semitropic, and make any capital payment necessary to reach that level. To maintain the currently reserved capacity of 350,000 AF, the District would have to make an additional capital payment of approximately $22.4 million. *(Ends policies 2.1.3 and 2.1.4)*

Managing Central Valley Project and State Water Project Contract Issues

The District's agreement with the U. S. Bureau of Reclamation provides for eventual payment of the major share of the USBR's costs for constructing the San Felipe Division of the CVP. The District's 1977 contract established a fixed rate for repayment of San Felipe Division facilities during the first 20 years of water deliveries (1987 through 2006) in recognition of the District's need to expand its local infrastructure to accept CVP water. The fixed rate provides for partial repayment of annual capital interest expense, and the cumulative shortfall was being tracked by the USBR as an alleged "operation and maintenance deficit," even though the District self-funds and performs San Felipe Division operation and maintenance. The District contested the USBR's accounting for project costs, and a settlement was achieved in March 2005. The settlement reduces the District's costs for CVP water by approximately $5 million per year.

The District's contract with DWR for supplies from the SWP is also being amended to address a wide range of water supply and financial issues (the "Monterey Amendment"). While some provisions of the amendment reduce the reliability of the District's SWP supplies, these are offset by others that allow more efficient, cost-effective management of SWP water through transfers and banking. A settlement over litigation regarding the Monterey Amendment was approved by Sacramento Superior Court on May 20, 2003. *(Ends policies 2.1.2, 2.1.3 and 2.1.4)*

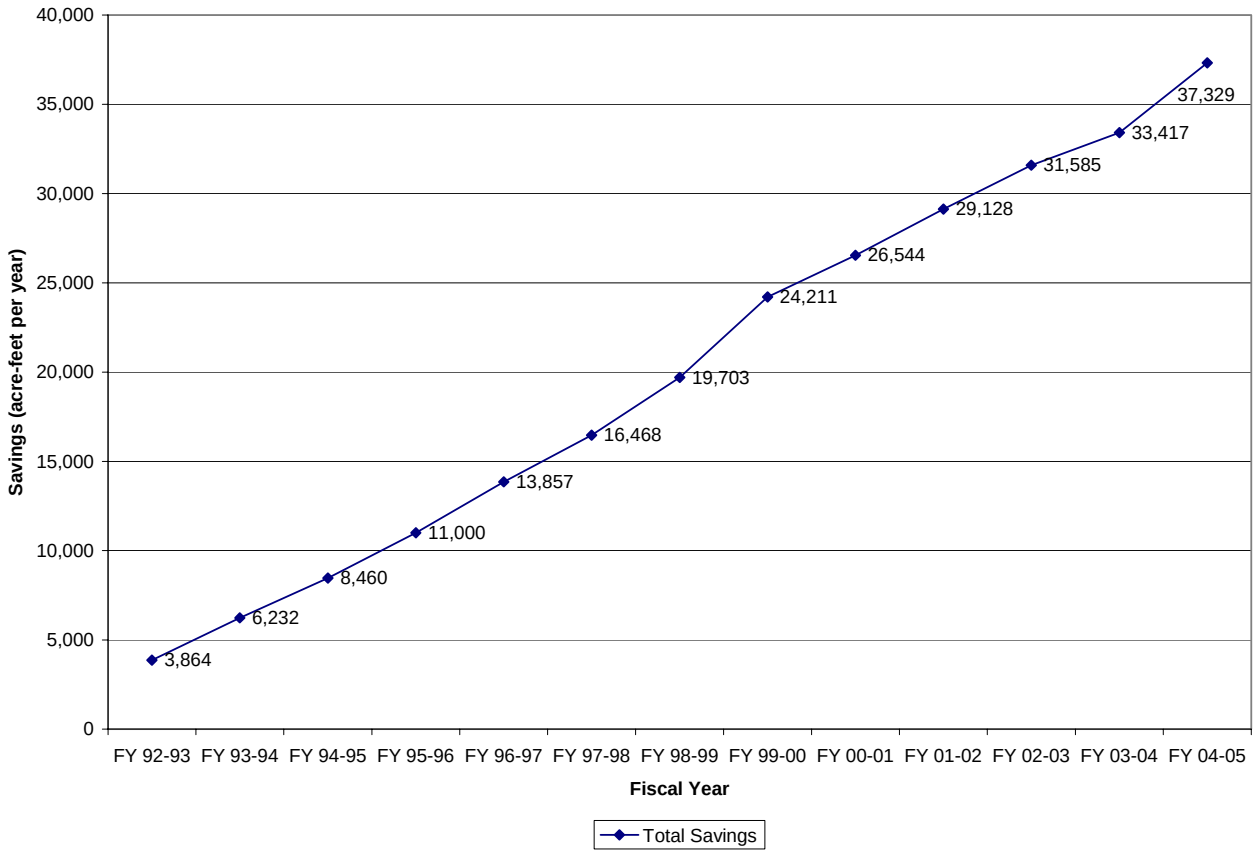
Water Use Efficiency: Water Conservation

The District's Water Conservation Program is essential to improving water supply reliability because the water savings achieved from implementing conservation will reduce current and future water demand. This is critical in that not only will it assist in meeting long-term reliability goals, but will also assist in meeting short-term demands placed on the water supply system during critical dry years. As a signatory to the California Urban Water Conservation Council's Memorandum of Understanding (adopted by our Board in 1991), the District is committed to implementing a number of Best Management Practices (BMPs) for urban water conservation. The Central Valley Project Improvement Act also requires implementation of various BMPs related to agriculture.

The Water Conservation Program's goal, as identified in our 2003 IWRP, is to reduce yearly baseline water demands by a total of 64,000 AF by the year 2020. To date, the District has reduced the yearly baseline water demand by 37,000 AF. *(Ends policies 2.1.2 and 2.1.3)*

Figure 3-1, shown below illustrates the progress that the District is making to reach this goal.

FIGURE 3-1
Annual Water Savings From Conservation Programs



Between 1990 and June 2005, the District has accomplished the following:

Residential Programs	Totals
Residential Ultra-Low-Flush Toilets (1.6 gallons per flush) installed	243,144
Residential high-efficiency (1.2 gallon per flush) toilet rebates	95
Residential water-efficient washing machine rebates	46,150
Low-flow showerheads distributed	128,000
Faucet aerators distributed	87,500
Water-Wise House Calls (residential surveys) completed	19,650

Commercial Programs	Totals
Commercial ultra-low-flush toilets installed	9,522
Commercial water-efficient washing machine rebates	2,278
Water-efficient pre-rinse sprayers installed in restaurants	2,665
Commercial high-efficiency toilets installed	950

Landscape Programs	Totals
Irrigation surveys for large landscapes completed	680
Weather-based or Evapotranspiration (ET) Irrigation Controllers installed	175

Of the aforementioned accomplishments, residential and business ULFTs contributed to over 54 percent of the annual water savings. Faucet aerators and showerheads respectively contributed 14 percent and 9 percent of the savings. Water efficient washing machines contributed 2.7 percent of countywide annual water savings. Other programs, such as the large landscape audits, Water Wise House Calls and business improvements (excluding the ULFTs) collectively reflect 20 percent of the annual water savings.

Program Highlights:

Residential High-Efficiency Toilets: In FY 2003–04, the Water Use Efficiency Unit launched the High-Efficiency Toilet Rebate (HET) Program. This program provides a financial incentive of $125 for single homes and multi-family complexes for the purchase of toilets which flush less than 1.2 gallons per flush. HETs are an emerging technology which has a great potential for water savings. Single family residences can replace up to three non-ultra low flush toilets (toilets which flush more than 1.6 gallons per flush) while multi-family complexes are only limited by the number of non-ULFTs they currently have.

Commercial Retrofits: Two DWR grant-funded programs were launched in 2004: the High-Efficiency Toilet (HET) Installation Program, a full-installation program placing 1.0 gallons per flush toilets in commercial establishments, and the High-Efficiency Medical Equipment Rebate Program, offering rebates for water-efficient x-ray fill processors and water-efficient dental vacuums. For the Commercial HET Program, nearly 1,000 toilets were installed in commercial establishments in FY 2004–05.

Pre-Rinse Spray Valve Installation Program: For the last three fiscal years, the District has been a participant in the state-wide, CPUC-grant funded Pre-Rinse Spray Valve Installation Program, also known as “Rinse & Save.” Since the start of the program in FY 2002–03, over 2,600 high-efficiency spray valves have been installed in restaurants and commercial kitchen facilities in Santa Clara County, helping to save water and energy (since the sprayers reduce hot water use).

The District also co-funds the WET (Water Efficient Technologies) Program, along with the City of San Jose, which offers rebates to commercial and industrial water customers throughout the tributary area of the San Jose/Santa Clara Water Pollution Control Plant for the implementation of process and equipment changes that

reduce water needs and wastewater discharges. In 2001, the District expanded the WET Program to cover all of Santa Clara County (i.e., non-tributary areas of the county) and covers the full cost of the WET projects outside of the tributary area. To date, 77 sites have received $1,283,126 in financial incentives, resulting in 1,437 acre feet per year in savings.

Web-based Irrigation Budgets: In late FY 2001–02, the Water Use Efficiency Unit started a program that will calculate water budgets for large landscape sites and land area for different crops. The District, utilizing multi-spectral images and different classification methods has calculated the square footage of irrigated landscape for approximately 50,000 irrigation-only and mixed-use commercial accounts that are distributed over a 900 square-mile area. We are now in the process of entering this data into a web-based database which will then calculate a site specific water-use budget. The database (which will be accessible to property owners, managers, landscapers, and water agencies) will include both a table and graph comparing a recommended amount versus what the site is actually using. The District has been awarded $406,000 in CALFED grant funding from the California DWR to help fund this project.

Weather-Based or Evapotranspiration (ET) Controllers: The Evapotranspiration (ET) Controller Pilot Program for both residential and commercial properties has now been completed. The target participants were the top 20 percent of residential/small commercial water consumers and will be used to determine the amount of outdoor water savings that can occur with the use of ET Controller technology. The program began in June 2003 and resulted in the installation of 175 residential and small commercial ET controllers.

The District also applied for and was awarded Proposition 13 grant funding in conjunction with six other Northern California water agencies and several Southern California water agencies including the Metropolitan Water District of Southern California. The grant will fund the installation of approximately 650 controllers over three years, with 75 percent targeted to be installed in locations with over one acre of irrigated landscaping.

Garden Soft Software: The District coordinated with Garden Soft Software to develop the residential Water-Wise Gardening for Santa Clara County CD-ROM. This interactive CD-ROM showcases over 1,000 native, drought-tolerant and water efficient plants and features the District's landscape design brochure "Rules of Thumb for Water-Wise Gardening." This software will be used to promote water efficient plant selection and garden design at District workshops and selected events.

Water-Wise Demonstration Garden: The District is also undertaking a Water Wise Demonstration Garden Project. Currently in the design phase, the goal of the demonstration garden is to develop a unique, one-of-a-kind, demonstration garden that promotes water use efficiency in landscaping. The garden will be an educational resource, test facility, and learning center providing environmentally sound and cost-effective landscaping alternatives. The primary purpose of the garden is to educate the general public on the use of water wise plants while promoting efficient irrigation technologies and recycled water.

Mobile Lab: The District is in the eighth year of a Mobile Lab Program, which provides County farmers with on-site irrigation system evaluations and recommendations for efficiency improvements. The District's Agricultural Water Use Efficiency and Nitrate Management Programs continue to work closely together and offer financial incentives to encourage more efficient water use and nitrate (fertilizer) management. The In-field Nutrient Assessment Assistance Program (INAAP) matches fertilizer use and irrigation to crop needs. To date, 256 sites — representing 71 growers have received the Mobile Lab field tests bringing the total annual potential savings to 4,046 AF.

The INAAP and Mobile Lab programs were consolidated in May 2003, and some changes in eligibility were made. The first was the addition of an irrigation system evaluation requirement in order to link the discount more closely to the District's goal of water use efficiency. The second was limitation of the duration of qualification to three years, after which the grower would have to obtain a new irrigation system evaluation to

maintain eligibility for the discount. The three year time limit is imposed because, over time, the efficiency of an irrigation system will degrade in the absence of a maintenance program.

The Water Use Efficiency Unit works with various committees and organizations, such as the Board's Landscape Advisory Committee, California Native Plant Society, Master Gardeners of Santa Clara County, and the Santa Clara County Farm Bureau to develop water conservation programs.

Managing Groundwater Recharge

The District operates ten reservoirs that conserve water for later recharge into the groundwater subbasins or treatment at one of the District's three water treatment plants. The three interconnected subbasins (see Groundwater Subbasins and Major Recharge Systems map, Appendix C) have approximately 530,000 AF of potential operational water storage and normally provide about half of the County's annual water supply.

Groundwater basins are naturally replenished by rainfall, water percolating through the beds of streams, and other sources. As natural recharge is not sufficient to replenish the amount of groundwater withdrawn annually, the District conducts an active managed recharge program. Groundwater recharge is critical for ensuring a reliable water supply, storing water for use during droughts and shortages, and preventing land subsidence, which is very costly to the community. The District's managed recharge program replenishes groundwater storage through more than 300 acres of off-stream ponds and 30 creeks. In addition to local water, these facilities also percolate imported water into the aquifer. The annual average recharge capacity of these systems is approximately 138,000 AF.

The Santa Clara Valley Subbasin underlies the northerly portion of the Santa Clara County (County) and includes the majority of the streams and recharge facilities operated by the District. In 2004, it is estimated that the District replenished this subbasin with approximately 66,700 AF of locally-conserved and imported water. The Coyote and Llagas subbasins in the southerly portion of the County were replenished with approximately 31,000 AF of locally-conserved and imported water. *(Ends policies 2.1.2, 2.1.3)*

Long-Term Planning for Water Supply

As the water management agency and water wholesaler for Santa Clara County, the District is responsible for planning the County's long-term water supply. Ensuring a safe and reliable water supply in the face of periodic droughts and increasing competition for water supplies from other urban, agricultural and environmental water users throughout the state is a significant challenge.

The District's Integrated Water Resources 2003 Planning study (IWRP 2003) provides a planning framework for future water supply investment options to meet the Board's policy that "There is a reliable supply of healthy, clean drinking water." IWRP 2003 is designed to be an on-going process and to provide an incremental and flexible implementation strategy in order to be able to plan for and react to the many challenges of the future. The main challenges that IWRP 2003 addressed include: dry year supply shortages, drinking water quality concerns related to both surface water and groundwater, population growth statewide and in the County, environmental water needs and fisheries protection measures that impact the reliability of imported and local water supplies, infrastructure failure risks, unanticipated changes in water demand due to land use changes, and long-term climate changes that impact availability of water supplies and controlling costs.

The IWRP 2003 study's principal recommendation was to safeguard and maintain existing supplies, infrastructure, and programs to ensure their long-term viability. The protection of the baseline is vital to ensuring reliability. IWRP 2003 also recommends a number of near-term actions to be implemented between now and 2010, as well as strategies to keep longer-term options open. As near-term actions are being implemented, the District will continuously monitor for risks as well as opportunities that could trigger the need

for longer-term water supply investments.

The District is also preparing the 2005 Regional Urban Water Management Plan (UWMP) that must be filed with the California Department of Water Resources (DWR) by 2005 as part of the Urban Water Management Planning Act and to remain eligible for state water bank assistance and state funding managed by DWR. UWMPs have a 20 year-plus planning horizon and DWR's intent is that they serve as a long-range water supply planning document for use by cities and the County as they prepare their general plans. The District's UWMP is prepared in coordination with water retailers (who also must prepare their own plans), the County, and cities. As part of this work, the District is performing demand studies using the growth projected in the cities and county general plans and population and growth projections from the state and the regional Association of Bay Area Governments (ABAG). The regional UWMP will also update drought contingency plans.

Foremost in the District's long-term water supply strategy is the need to develop and promote partnerships. The District works with the county of Santa Clara, cities, water retailers, industry stakeholders, a variety of community groups, the San Francisco Public Utilities Commission (SFPUC), the Bay Area Water Supply and Conservation Agency (BAWSCA), and neighboring local and regional water management agencies. The District entered into a Memorandum of Understanding (MOU) with SFPUC in 2004 to coordinate water supply planning activities and participated in some of SFPUC's planning studies.

The District is taking a leadership role in the Bay Area Water Agencies Coalition (BAWAC) in coordinating water planning and management activities among agencies in the nine-county Bay Area region. One of the current BAWAC activities is to develop a Bay Area-wide Integrated Regional Water Management Plan that encompasses all the water resources management programs and activities including: water supply and water quality, storm water and flood control, watershed management and ecosystem restoration, and wastewater management and recycling. The District is also partnering with ABAG and other local government and community leaders in the Bay Area Water Forum to promote dialogues relating land use and water management and to promote common interests in the region.

The District is working with San Benito County Water District (SBCWD) and Pajaro Valley Water Management Agency (PVWMA) in developing an Integrated Regional Water Management Plan that addresses water supply and water management issues in the southern region. The District also entered into an MOU with SBCWD and PVWMA in 2004 to coordinate water supply planning and management activities.

The District participates actively in statewide, regional and local planning processes and promotes strategic partnerships that can provide improvements in water supply reliability, regulatory certainty, drinking water quality and facilitate program and project implementation.

To maintain sufficient water supplies to support economic growth and maintain the quality of life in our community, the District aims to ensure adequate water supplies in both the short- and long-term. Obtaining adequate supplies for the future has two aspects: maintaining the reliability of existing supplies through both wet and dry years and developing access to additional supplies to meet future needs. *(Ends policies 2.1.3 and 2.1.4)*

Water Supply Augmentation

Ensuring the availability of 300,000 AF annually to 15 cities spread over 1,300 square miles requires operation of the following facilities:

- 10 surface reservoirs with a capacity of 169,000 AF
- 17 miles of canals

- 393 acres of recharge ponds
- 76 miles of controlled in-stream recharge in the County
- 142 miles of pipelines
- Three water treatment plants
- Three pump stations

To manage the County's water storage reservoirs, both surface and underground, the District operates and maintains a countywide conservation and distribution system (see Water Conveyance, Treatment, and Distribution map, Appendix C). The system conserves local runoff for either recharge into the groundwater basin or treatment at one of the District's three water treatment plants. The District also operates several local pipelines to transport imported raw water and locally-conserved water to various locations within the system for treatment and distribution or for groundwater recharge.

The District has long-term agreements to purchase water to augment local water supplies through the CVP and SWP facilities. In addition, the District supports the development of recycled water and promotes water conservation in homes, business, and agriculture. A significant effort is also dedicated to preparing long-range water supply plans, including planning for droughts. The principal activities of the District in augmenting water supplies are described below. *(Ends policies 2.1.2, 2.1.3 and 2.1.4)*

Resource Protection

Preserving the quality of water supplies is more cost-effective than treating contaminated or degraded water. Pursuant to the District's mission to provide high-quality water to the County, the District continually addresses water quality problems that threaten the delivery of safe, reliable, high-quality water. This is to ensure that water delivered to the District's retailers meets or exceeds all state and federal drinking water regulations. The District also responds to unforeseen water quality issues and acts to ensure the continued ability to deliver high-quality water.

The following subsections describe the District's activities to protect groundwater and surface water:

Nitrate Management

One threat to groundwater supplies is nitrate contamination. High nitrate concentrations in drinking water can cause health problems in infants less than six months of age. Nitrate contamination is a particular concern in the southern portion of the County, but increased concentrations of nitrate have also been reported in parts of the North County. The District has identified the main sources of nitrate in the South County/Coyote Valley area as fertilizer applications, septic systems, and animal enclosures. The District continues to implement a Nitrate Management Program to monitor nitrate occurrence, reduce nitrate exposure, and reduce nitrate loading throughout Santa Clara County.

To monitor long-term trends in nitrate occurrence, the District collects data from more than 60 wells, supplemented by data from public water suppliers. The data indicate that, since the mid-1980's, nitrate concentrations appear to be declining in the Santa Clara Valley Subbasin. Monitoring data since 1998 suggests that, in general, nitrate concentrations in the Coyote and Llagas subbasins are either steady or decreasing.

To reduce exposure to nitrate, the District offers a free nitrate analysis to all private water supply well users. Since 1998, more than 600 tests have been conducted. More than half the wells tested have exceeded the maximum contaminant level of 45 milligrams per liter of nitrate. Test recipients are given a copy of the results along with a fact sheet detailing what nitrate is, where it comes from, what the health risks are, how to remove nitrate using point of use treatment systems and how to prevent further contamination.

To reduce nitrate loading, the District has launched a series of workshops in conjunction with the University of California Cooperative Extension, Department of Agriculture, Farm Bureau and Natural Resource Conservation Service.

To encourage more efficient water use and nitrate management, the District provides free in-field technical assistance on nutrient and irrigation management to growers through the In-field Nutrient Assessment Assistance Program (INAAP). This program directly addresses water and fertilizer use efficiency, their inter-relationships, and groundwater protection. The District offers incentives to eligible growers that participate in INAAP, in addition to those available for Mobile Lab participation.

More than 90 growers, accounting for approximately 70 percent of the reported irrigated acreage in the County, have participated in the INAAP. *(Ends Policy 2.1.5)*

Perchlorate

In late 2002, perchlorate, a chemical used in the manufacturing of rocket fuel, road flares, and fireworks, emerged as a significant contaminant in the Llagas Subbasins. The Olin Case in Morgan Hill has now affected more than 800 water supply wells in the unincorporated area of Santa Clara County known as San Martin, as well as Morgan Hill and Gilroy. The Central Coast RWQCB is providing regulatory oversight of the Olin Case and is directing the investigation and cleanup for perchlorate contamination in the San Martin area. Currently, the known extent of the plume extends 10 miles from the site to the Pacheco Pass Highway.

Perchlorate has also been found in domestic and municipal wells located north and ostensibly upgradient of the Olin site. Four of the City of Morgan Hill's supply wells have had perchlorate detections. The RWQCB has required Olin to conduct additional investigations into groundwater flow patterns in the area northeast of the site. Sporadically, low levels of perchlorate have also been detected in water supply wells in the Coyote and the Santa Clara Valley subbasins.

Staff is continuing to support the Central Coast Regional Board's regulatory effort by providing groundwater data and information, technical assistance on investigation and cleanup oversight efforts, and logistical and technical support for Perchlorate Community Advisory Group meetings. In addition, staff is working closely with the Regional Board, County of Santa Clara, and the cities of Morgan Hill and Gilroy to secure a comprehensive long-term corrective action plan that meets all of the community's interests for water supply and groundwater cleanup.

On March 10, 2005, RWQCB released the final Cleanup and Abatement Order. This Order, together with other orders requiring wellhead treatment, bottled water delivery, and data collection to resolve the "northeast flow" issue, comprise the comprehensive time-certain solution that the District and other local agencies have been promoting.

The District is developing projects to address perchlorate impacts using congressional funding. The first set of projects will use $745,600 of *Environmental Protection Management* funds, which require no matching funds from the District. *(Ends Policy 2.1.5)*

Groundwater Monitoring Improvements

In July 2003, the District received a grant for nearly $250,000 from the Department of Water Resources to construct nine groundwater monitoring wells under the Local Groundwater Management Assistance Act of 2000. The purpose of the groundwater monitoring wells is to obtain depth specific groundwater elevation and groundwater quality data in Coyote and Llagas subbasins in South County/Coyote Valley. The monitoring data, as well as geologic information from geophysical logs and drilling, will help the District to better

understand and protect local aquifers. The District has installed seven monitoring wells to date with the remaining two wells on schedule to be completed before the grant funding expires in August 2005. *(Ends policies 2.1.5 and 2.2.2.3)*

Groundwater Guardian

The District has been designated as a Groundwater Guardian by the Groundwater Foundation, based on the District's groundwater protection efforts, since 2000. The Groundwater Foundation is a nationally recognized, private, non-profit, educational organization dedicated to protecting groundwater resources from contamination and over-drafting through outreach and education. As a Groundwater Guardian, the District supports community outreach and protection efforts, develops educational materials and provides technical assistance for groundwater protection activities. The District supports the Perchlorate Community Advisory Group's Groundwater Guardian Community work. *(Ends Policy 2.1.5)*

Underground Storage Tank Fuel Cleanup Program

The District's Groundwater Cleanup Oversight Programs Unit has been responsible for the Leaking Underground Storage Tank Oversight Program (LUSTOP) since 1988. The program oversees the investigation, cleanup, and closure of cases where soil and/or groundwater have been affected by petroleum fuel and additives from leaking underground storage tanks (USTs). The District officially transferred the program to the County of Santa Clara Department of Environmental Health on June 30, 2005.

More than 2,450 fuel leak cases have been reported in the County, and 80 percent of these cases have received regulatory closure by the District or other regulatory agencies. Sixty-six (66) open sites are overseen by the RWQCBs and, as of July 2005, all four hundred and two (402) of the remaining active cases will be overseen by the County of Santa Clara Department of Environmental Health. District staff will continue to provide minimal assistance and advice to Santa Clara County staff as needed. *(Ends Policy 2.1.5)*

Solvents and Toxics Liaison Program

The District's Groundwater Cleanup Oversight Programs Unit provides peer review and regulatory liaison on solvents, toxics, perchlorate, and other contamination cases that threaten groundwater quality. Activities that use chlorinated solvents and recalcitrant toxic chemicals can pose a significant threat to the groundwater basin and many of these activities have resulted in releases to soil and groundwater. The large number of electronics manufacturing plants, together with heavy industry and military facilities in Santa Clara County, has resulted in over 600 solvents and toxics releases that have affected the groundwater. The District provides peer review, tracks cleanup progress, and participates in several advisory committees to ensure that local groundwater resources are protected.

The District is also performing an evaluation of the effects of releases of perchloroethelyne (PCE) from dry cleaners and other facilities that use PCE and has identified more than 600 former locations of dry cleaning operations that have operated in the last 60 years, in addition to the 220 active dry cleaning plants in Santa Clara County. District staff will be requesting the Regional Boards to ensure that possible PCE contamination associated with these operations are investigated. *(Ends Policy 2.1.5)*

Well Ordinance Program

The District protects the quality and quantity of the County's groundwater resources by ensuring that all wells in the County are constructed, maintained, modified, and destroyed in compliance with the District Well Ordinance and the State Well Standards.

The Well Ordinance Program includes permitting, tracking, inspecting, and violation enforcement of all wells in the County. The program also assists the public in destroying abandoned wells and maintains District-owned wells. *(Ends policies 2.1.5 and 2.2.2.3)* During the first 10 months of FY 2004–05, the District:

- Permitted 2,124 wells and other deep excavations for construction or destruction
- Inspected 1,705 wells and other deep excavations constructed or destroyed
- Registered 532 new wells

HAZMAT Emergency Response Program

To prevent or limit contamination of the County's water supply and riparian habitats from hazardous material (HAZMAT) releases, the District incident response staff can manage investigations, conduct sampling and analysis, direct clean up and disposal of suspected or known hazardous materials dumped or spilled in the vicinity of reservoirs, recharge ponds, rivers, creeks and other District jurisdiction interests. *(Ends Policy 2.1.5)*

Urban Runoff Program

The District Urban Runoff Program is dedicated to surface water quality protection. This program conducts projects that integrate into District-wide watershed and water enterprise operations to prevent storm water runoff pollution. This includes the training of District staff and conducting outreach efforts to facilitate the improvement of stream water quality in the Santa Clara County. In order to improve efficiency, the District is pursing a more cost-effective membership in the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP). The programs provide training, outreach and monitoring to ensure the improvement of the quality of storm water that flows into streams of the Santa Clara Valley and the San Francisco Bay. Under a revised MOA, the District would participate in the SCVURPPP program as one of 15 co-permittees under a single Municipal Storm Water Permit from the San Francisco Bay RWQCB. Additionally, the District, under its Clean, Safe Creeks Plan is extending these storm water pollution prevention efforts into south Santa Clara County. Combining efforts with other local agencies allows for collaboration in county-wide Urban Runoff Program activities. *(Ends Policy 2.2.2.2)*

Water Use Efficiency: Water Recycling and Desalination

The amount of recycled water used in Santa Clara County during calendar year 2004 was over 9,900 AF. As shown in Figure 3-2, this performance shows an increasing trend from past years. The District expects this trend to continue through 2005. It is estimated that recycled water accounted for 2.6 percent of the total county-wide water used in year 2004. The District's Board policy aims for recycled water to be 5 percent of total water use in the year 2010 and 10 percent of total water use by 2020. *(Ends policies 2.1.6.1 and 2.1.6.2)*

The IWRP also identifies desalination as a building block in the District's long-term future water supply portfolio. The District anticipates meeting the IWRP target to desalinate 10 million gallons per day in the future, by continuing the direction undertaken through our projects, joint partnerships and studies.

Projects:

The Water District is participating in the planning, design and construction of recycled water facilities in Silicon Valley. Among these are:

<u>Silver Creek Pipeline</u>: As part of an agreement with the City of San Jose, the District is funding approximately $5.5 million (25 percent of cost) for the actual construction cost of the Silver Creek pipeline. Besides providing about 3.5 million gallons of recycled water a day from the San Jose/Santa Clara WWTP to the Metcalf Energy Center in 2005 and potentially to other customers along this pipeline alignment, this pipeline would provide the

District with a guaranteed 5 million gallons per day of recycled water for future use in Coyote Valley.

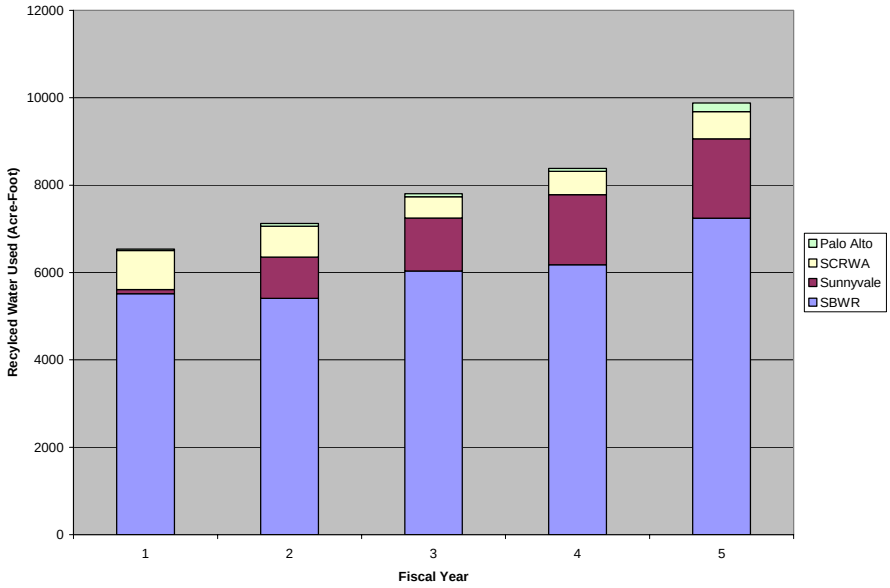
South County Recycled Water Master Plan: The District and the South County Regional Wastewater Authority (SCRWA) developed a Recycled Water Master Plan. This Master Plan recommends immediate, near- and long- term system improvements in the recycled water system intended to serve the Uvas/Llagas area. The District plans to invest approximately $3.2 million towards projects recommended in the immediate-term Master Plan. The District and SCRWA anticipates receiving up to $2.23 million from the State to help fund these immediate-term project construction costs, the total cost of which is $7.4 million.

Agency Agreements:

Rebates Agreement: The District is helping the cities (San Jose and Sunnyvale) in production and expansion of recycled water within the County through a rebate agreement with South Bay Water Recycling and the City of Sunnyvale that pays $115/AF for recycled water used to offset District potable supplies. This cost to the District for April 2005 is anticipated to be approximately $1.2 million.

Produce Wholesaler Agreement/Wholesaler Retailer Agreement: The District, South County Regional Wastewater Authority, and the cities of Gilroy and Morgan Hill entered a partnership agreement to develop a marketable water recycling program in South County and provide for future expansions.

FIGURE 3-2
Recycled Water Used in Santa Clara County



Studies:

The Santa Clara Valley Water District is conducting studies and research investigating the potential implications of recycled water usage. The District is also investigating the feasibility of brackish desalination in this county. Among the studies being undertaken are:

Impact of Recycled Water on Soils: In 2004, the District completed a study on geochemical reactions between recycled water and soil minerals investigated the impacts of recycled water on soils in the county.

Groundwater Monitoring: The Water District has developed a groundwater monitoring network to detect any changes in groundwater quality in areas using recycled water. Groundwater monitoring is on-going.

Water Softener Pilot Project: The District is about to complete this study, designed to assess the types of outreach programs and incentive offers that are necessary to persuade customers to use more efficient water-softening technology, to reduce the amount of salt these systems add to recycled water, and to conserve water and energy. Approximately half of the funding for this project came from a State grant.

Characterizing Salinity Contributions in Sewer Collection and Reclaimed Water Distribution Systems to Develop Salinity Management Strategies: The study was to identify sources of salinity in sewer collection systems and develop management strategies to control salinity levels of recycled water.

Industrial Application of Recycled Water: The District is studying innovative uses of recycled water at a chip manufacturing facility that could be a showcase project for other industrial water users. The notice to proceed for this project was reissued to Applied Materials, Inc. in late June 2004. Applied Materials is a large semiconductor equipment manufacturer that was willing to lend their facilities for innovative testing of their manufacturing process using recycled water and share costs.

Streamflow Augmentation Research using Recycled Water: The District, as a subcontractor to MWD has secured DWR funds that will account for 50 percent of the total project costs to study use of advanced treated tertiary recycled water for stream flow augmentation. The objective of this project is to assess the potential impact of large-scale augmentation of the Coyote Creek flow with tertiary treated water on the water quality of the creek and the underlying groundwater.

Electo-dialysis Reversal/Reverse Osmosis Pilot Work: The District, as a subcontractor to MWD has secured California Energy Commission Funds ($50,000) and is currently performing a joint study with the City of San Jose (using an additional $63,678 of District funds) to analyze electro-dialysis reversal/reverse osmosis pilot work in recycled water treatment. The City also obtained grant funds for this project for the WateReuse Association and U.S. Bureau of Reclamation. The total cost for this joint project is over $360,000.

Solutions Project: This project is to perform site specific investigations for sustainable use of recycled water. Two golf courses and one school will have soil samples analyzed to determine the quality required of irrigation waters to maintain soil structure and not impede drainage. The results of these investigations will be used in conjunction with investigations of the salt tolerance of Coast redwood (below) to develop site specific management plans to enable the sustainable use of appropriately processed recycled water at these sites.

Irrigation water quality requirements of Santa Clara County soils: Column studies will be undertaken on soil samples representing major soils in the Santa Clara and Llagas valleys to determine the water quality requirements necessary to maintain their structural integrity under irrigation and winter rainfall.

Bay Area Regional Desalination Study: In 2003, the District with East Bay Municipal Utility District, Contra Costa Water District and San Francisco Public Utility Commission began undertaking a project to analyze the feasibility of a regional desalination facility. Desalinated water could be used as a long-term water supply, an emergency supply, and an intermittent supply during shutdowns for maintenance by the various water agencies in the San Francisco region.

Pajaro Watershed Brackish Groundwater Desalination Project: The District and San Benito County Water District are the joint recipients of $245,000 in a state grant to conduct a $490,000 brackish water feasibility study in the Pajaro Basin.

Brackish Desalination Pilot Study: The District, as a subcontractor to MWD has secured DWR funds that will account for 50 percent of the total project costs to perform a pilot study to evaluate the feasibility of using innovative brackish groundwater treatment technology for brackish water desalination.

Flood Protection and Stream Stewardship Program

To address community expectations and the District Board's Ends Policies on quality of life in the County, the District is using additional funding from its voter-approved special tax to provide for restoration and enhancement of natural resources within our watersheds. This element is an important part of the Clean, Safe Creeks and Natural Flood Protection Plan approved by County voters in November 2000.

The Clean, Safe Creeks plan also protects water quality in our creeks and bays and benefits water supplies. Portions of the additional funding is used to keep our creeks cleaner and free from trash and pursue improved detection and management of toxic materials (such as mercury and diazinon) that pollute our water supplies, creeks and bay.

The District also participates in the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) as a co-permittee. The objective of the SCVURPPP is to protect stream resources by preventing pollution from entering our creeks and the Bay. Each of the co-permittees implements its own, agency-specific storm water pollution prevention program. These activities, and the level of implementation, are specified in performance standards. Currently, the District implements Performance Standards for:

- Illicit Connection and Illegal Dumping Elimination Activities
- Industrial/Commercial Discharger Control Program
- Public Streets, Roads, and Highways Operation and Maintenance
- Storm Drain System Operation and Maintenance
- Water Utility Operation and Maintenance
- Planning Procedures
- Construction Inspection

In addition, the District collaborates in various program-wide efforts, including public education and monitoring. *(Ends Policies E.2.2.1, E.2.2.2.1, E.2.2.2.2)*

ENDS POLICY E-3

Ends Policy E-3 states, *"There is an enhanced quality of life in Santa Clara County."* This policy strives to accomplish two goals. The first goal is to ensure that the watersheds, streams, and the natural resources therein are protected and when appropriate enhanced or restored. The second goal is to provide reduced potential for flood damages. Watershed Operations is primarily responsible for accomplishing this Ends Policy. However, the Water Utility Enterprise does contribute to carrying out this policy. The program and the specific ends policy(ies) that the program is designed to fulfill is as follows:

Stream and Watershed Management

The District plays a key role in balancing the water needs of a growing economy with those of the environment. The District has initiated a watershed management approach as a responsible steward of watersheds, including streams and riparian corridors. For example, in October 1997, the Fisheries and Aquatic Habitat Collaborative Effort (FAHCE), which is comprised of the District, the California Department of Fish and Game, National Marine Fisheries Service, U.S. Fish and Wildlife Service, Natural Heritage Institute and the City of San Jose was formed to study the aquatic habitats in our managed streams and the impacts on them from District facilities and operations.

Stream maintenance projects are planned, designed, constructed, and operated in an environmentally sensitive manner to address reservoir water storage, and in-stream and off-stream groundwater recharge.

Project specific measures are taken to protect sensitive species, water quality, fisheries, riparian and wetland resources. New management practices include scheduling the work to avoid impacts to nesting birds, removing sediment from half of the channel in alternating years on certain creeks, diverting flows around a work site, reseeding disturbed areas and relocating fish.

Changes in land use and new developments can negatively impact water quality and District facilities. To minimize these impacts, the District's Community Projects Review Unit enforces the District's Ordinance 83-2, which regulates activities near District facilities, reviews external environmental documents and coordinates with cities and other agencies with regard to their land use decisions.

Together, the foregoing activities strive to protect County habitat, while accommodating water supply and other human impacts. *(Ends Policies 3.1, 3.1.1.1, and 3.1.1.2)*

ENDS POLICY E-4

Ends Policy E-4 states, *"There is a positive District image in the community which supports the carrying out of the District's mission."* This policy strives to attain a workforce of District staff that has the knowledge and expertise in subject matter that is integral to the future of water resource management in Santa Clara County. The policy also strives for increased positive interaction with the community. Although Administration, the Office of Communications and the Governmental Relations unit are primarily responsible for Ends Policy 4, the Water Utility Enterprise does contribute to carrying out this policy. The program and the specific ends policy that the program is designed to fulfill is as follows:

Office of Communications

The Office of Communications connects the work of the District and its Board of Directors to the general public, public officials, community leaders, and policy makers. It works in partnership with the Water Utility Enterprise, Watershed Operations and Administration to enable the Water District to communicate its mission while strengthening its relationships with the community, and communicating the value of water to the public in order to achieve its Ends Policies. Such communication efforts are an important component of water utility operations, including management of local water resources, and education and assistance with water conservation and resource protection programs, as they help ensure safe and reliable supplies.

The office develops and integrates the District's key messages through its marketing, media, public information and education efforts. The office promotes the District's brand image; serves as principal liaison to the news media; develops outreach and educational information for the public; helps shape public opinion; and mobilizes support for District activities throughout Santa Clara County. *(Ends Policy 4.2)*

Government Relations

The Government Relations Unit (GRU) facilitates and executes strategic external partnership activities at the federal, state, local and regional levels to support District policy objectives. Staff performs anticipatory issues management and monitors emerging policy trends. In addition to its policy endeavors, the GRU vigorously advocates for federal and state funding of District projects to support flood protection, watershed restoration, groundwater remediation, water use efficiency and other District efforts. The GRU serves as the internal and external connection for: legislation, development of strategic support and opposition, and supplemental funding opportunities for the District. *(Ends Policy 4.2)*

CAPITAL IMPROVEMENTS

The District constructs and maintains reservoirs, pipelines, recharge ponds, and water treatment plants that are needed to achieve the Board's Ends Policies.

Project management and engineering services for planning, design and construction of the District's capital projects are provided by the Capital Program Services Division. The Division is also responsible for the development, management, monitoring and tracking of the District's Capital Improvement Plan (CIP). This plan is intended to identify and plan for the District's 10-year capital improvement spending, the sources to fund the long term plan, and the staffing level to execute the long-term plan.

Some major water utility capital improvement projects currently in progress include Almaden Dam Outlet Works, Lenihan Dam Outlet Modification, Water Treatment Improvement Projects Stage 2, and New Water Quality Laboratory. Each of these capital projects is designed to carry out one or several of the Board's Ends Policies. The objectives of these projects are as follows:

- The Almaden Dam Outlet Works Project will investigate and restore the integrity of the outlet works facility to preserve the operating functions of Almaden Dam and comply with California Division of Safety of Dams (DSOD) regulatory requirements. The silt level in the reservoir is approaching the top of the intake tower and the existing intake structure does not meet current seismic standards. The project is in the planning phase which includes the evaluation of alternatives to correct these deficiencies. The preliminary project cost is estimated to be $15.4 million.

- The Lenihan Dam Outlet Modification Project will develop and implement a solution to the outlet pipe collapse problems so that the operational restrictions imposed by DSOD can be removed. The project is currently in the planning phase. The design phase is scheduled for FY 2005–06 and the project is scheduled to be advertised for construction in FY 2006–07. The estimated total project cost is $28.9 million.

- Stage 2 of the water treatment plant process upgrades will further reduce the levels of disinfection by-products and potential for microbial contaminants in treated water and to further improve water quality. This will include switching to ozonation as the primary disinfection method instead of chlorination and installing filter-to-waste and washwater clarification facilities. The Stage 2 work also includes structural modifications to improve treatment plant reliability during seismic events and process additions to increase treatment capacity at Rinconada to meet projected future demands. The improvements ensure the District's treated water quality meets or exceeds all applicable regulations, and improves the reliability of the three treatment plants. Construction of the $255 million capital improvement project began at Santa Teresa in September 2002 and at Penitencia in December 2002, with completion scheduled in August 2005. Construction at Rinconada is scheduled to begin in September 2007.

- The District Board supported a major upgrade and site change to the agency's laboratory. Although the lab's original 1,280-square foot space at Rinconada had expanded to 2,600 square feet by 1987, a study that same year found 7,000 square feet was needed to accommodate the increasing workload associated with new regulations. By 2003, 17 lab employees were working six days a week to monitor treatment processes, and were performing more than 138,000 tests each year for bacteria, turbidity, hardness, pH, trihalomethanes, organic substances, metals, pesticides, fertilizers, and toxic chemicals. The budget for this level of work exceeds $3 million annually. The lab, consistently certified by the State Department of Health Services through the years, holds one of the highest levels of certification available, both for the number of tests it can perform and for analytical accuracy. Given the growth in responsibilities, the District Board approved adding a new laboratory to the agency headquarters

campus on Almaden Expressway in south San Jose. The New Water Quality Laboratory Project includes planning, design, and construction of a laboratory that is in compliance with EPA guidelines and other applicable standards, and meets the projected needs of the District for at least a 10-year horizon. Construction is scheduled to begin by the spring of 2006. By the summer of 2007, construction is expected to be competed on a $13 million, 18,400-square-foot laboratory building at the northeast end of the campus. The lab may also be available to the county's water retailers, providing services on a fee basis. The estimated total project cost is $21.1 million.

Development of the Asset Management Program Plan was started in January 2002 to provide a better basis for identifying long-term capital rehabilitation and replacement needs. This program's goal is to lower the cost of asset ownership and improve system reliability by establishing a life-cycle preventative and corrective maintenance schedule for each of the District's assets. The plan that will be generated from this effort will identify projects similar in nature to the inspection and rehabilitation of vaults and air valves on the Santa Clara Distributary, replacement of the 48" ball valve at the Piedmont Valve Yard, and Rinconada Reservoir Roof Rehabilitation. The initial program plan was completed in September 2003.

Table 3-1 shows the funding for capital projects for FY 2004–05 and FY 2005–06, and planned funding for the next four fiscal years. Items that have an asterisk next to them represent projects that were highly endorsed by District customers and were recently added to the list of funded projects. The San Felipe 2002 Inspection Followup and three projects at Rinconada Water Treatment Plant were endorsed by District customers but are not scheduled to begin until FY 2011–12. The RWTP projects include the BL-1 Valve Vault, the Discharge Valves Actuator, and the Air Wash System/Backwash Valves projects. The cumulative investment between FY 2005–06 and FY 2009–10 is projected to be approximately $265 million (uninflated).

TABLE 3-1
Capital Improvement Projects —Fiscal Years 2004–05 Through 2009–10

(Thousands of Dollars, Uninflated)

	04/05 Adjusted Budget	05/06 Adopted Budget	06/07 Projection	07/08 Projection	08/09 Projection	09/10 Projection
SOURCE OF SUPPLY						
*Flashboard Dam Improvement	41	-	-	5,000	620	475
Almaden Dam Instrumentation	255	515	1,109	1,305	1,155	-
Dam Seepage	83	-	-	-	-	-
Geodetic Control Mainten Prog	16	-	-	-	-	-
SC Recycled Water Immed Term	1,968	14	-	-	-	-
San Tomas Wellfield	5,098	135	-	-	-	-
Water Banking (Capital)	5,101	22,466	-	-	-	-
Silver Creek Pipeline	7,540	-	-	-	-	-
Advanced Recycled Water Treatment Facility	234	76	-	-	-	-
San Luis Reservoir Lowpoint	2,952	-	1,569	-	-	-
Santa Clara Tunnel Landslide	50	-	-	-	-	-
Vasona Pump Station, Chemical Feed	36	-	-	-	-	-
*Water Infrastructure Reliability Program	34	2,033	-	-	-	-
Almaden Dam Outlet	2,537	-	950	1,200	6,000	1,500
Jacques Gulch Restoration	937	368	240	240	240	240
Fellow's Dike Rehabilitation	641	-	800	3,000	900	300
Lenihan Dam Outlet Mods	1,472	692	19,067	1,232	502	-
Pacheco Pumping Plant ASD Replace	1,848	1,373	1,809	1,848	1,961	1,271
*Critical Asset Management	-	-	977	977	977	977
Guadalupe Dam Outlet Works Rehabilitation	-	-	-	-	242	557
Calero Dam Outlet Works Rehabilitation	-	-	-	-	141	455
*Pachecho Fiber Optic Cable Replace	-	-	407	683	-	-
SC Tunnel Leakage Control	-	-	180	40	-	-
Subtotal	**30,842**	**27,672**	**27,108**	**15,525**	**12,738**	**5,775**
RAW WATER TRANSMISSION & DISTRIBUTION						
Central Pipeline Rehab	497	2,964	-	-	-	-
Vasona Restroom Modification	388	6	-	-	-	-
Vasona Pumping Plant Electrical	437	-	-	-	-	-
Raw Water Control System	94	1,235	-	-	-	-
Stream Flow Alert Upgrade Project	1	-	-	-	-	-
Kirk Ditch	71	-	-	1,110	255	-
*Almaden Calero Canal	565	-	-	600	600	5,000
San Pedro Recharge Facility	40	-	-	-	-	-
*Critical Asset Management	-	-	293	293	293	293
Subtotal	**2,092**	**4,205**	**293**	**2,003**	**1,148**	**5,293**

Note: Items that have an asterisk next to them represent projects that were eliminated from the cost projection but were subsequently added back based on the endorsement of District customers.

TABLE 3-1 continued…
Capital Improvement Projects —Fiscal Years 2004–05 Through 2009–10

(Thousands of Dollars, Uninflated)

	04/05 Adjusted Budget	05/06 Adopted Budget	06/07 Projection	07/08 Projection	08/09 Projection	09/10 Projection
WATER TREATMENT						
SCADA Software/PLC Upgrade, WT Plants	1,194	528	-	-	-	-
PWTP Water Treatment Improv Stage 2	15,780	2,147	662	5,000	-	-
PWTP Mech Repair Shop/Storage	571	-	1,100	-	-	-
PWTP Corrosion Inhibitor (Zinc Orthophosphate Sys)	230	-	800	656	-	-
PWTP Backup Generator System	1,727	-	-	-	-	-
PWTP Wastestream Separation	114	-	50	200	350	-
PWTP Operations Building Modifications and Expansion	46	-	-	-	-	-
PWTP Backwash Pump	536	-	100	300	800	-
STWTP Water Treatment Improv Stage 2	15,303	-	-	-	-	-
STWTP Incompatible Materials	1,740	-	1,900	-	-	-
RWTP Water Treatment Improv Stage 2	1,447	-	3,200	24,392	42,354	23,385
RWTP Corrosion Inhibitor (Zinc Orthophosphate Sys)	46	125	1,391	285	-	-
RWTP Backup Disinfection	965	-	-	-	-	-
RWTP Plant Water System	56	-	-	-	-	-
RWTP Backup Generator System	1,404	-	-	-	-	-
RWTP Waste Strm Separation (Washwater Recov Pond Mod	6	-	50	200	350	-
RWTP Trunk Cable Upgrade Proj	-	106	-	-	-	-
New Water Quality Laboratory	10,744	1,915	-	-	-	-
*RWTP Upflow Clarifier Inlet Valves	-	-	220	877	-	-
*Critical Asset Management	-	-	293	293	293	293
Landscape Imp (Visual Scrng) at 3 WTP	1,857	3,162	43	-	-	-
Telephones at Vasona & 3 WTP	1,154	-	-	-	-	-
Subtotal	**54,921**	**7,984**	**9,809**	**32,203**	**44,147**	**23,678**
TREATED WATER TRANSMISSION & DISTRIBUTION						
Treated Wtr T&D Inst Upgrade	12	-	-	-	-	-
Security Improvement	498	-	-	-	-	-
SCVWD SFWD Intertie	27	-	-	-	-	-
DHS Compliance, Treated Water System	1,298	500	1,000	2,500	2,500	2,500
PWTP Del Main Modulating Valve	22	-	-	-	-	-
Rinconada Res Roof Rehab	164	-	-	-	-	-
*Critical Asset Management	-	-	391	391	391	391
*West Pipeline	-	-	-	-	288	190
*Milpitas PL Terminus Valve & Vault	-	-	90	100	144	710
Subtotal	**2,020**	**500**	**1,481**	**2,991**	**3,323**	**3,791**
ADMINISTRATION AND GENERAL						
Capital Program Services Division - Admin	3,269	3,151	4,286	5,244	5,836	5,673
Technical Services Division - Admin	772	1,186	1,475	1,852	2,170	2,025
Subtotal	**4,042**	**4,337**	**5,762**	**7,095**	**8,005**	**7,698**
TOTAL	**93,917**	**44,698**	**44,452**	**59,817**	**69,361**	**46,234**

Note: Items that have an asterisk next to them represent projects that were eliminated from the cost projection but were subsequently added back based on the endorsement of District customers.

4. FINANCIAL OUTLOOK FOR THE WATER UTILITY ENTERPRISE

INTRODUCTION

The purpose of this section is to describe the short-term and long-term financial requirements for achieving the Board's Ends Policies and to present a funding approach. Section 1 reported the adopted rates for FY 2005–06 and briefly summarized the multi-year projection. Section 4 describes the multi-year financial analysis and the funding approach that serves as the foundation for the adopted rates in each zone. The proposed funding includes a series of increases in water rates in each zone for the next ten years in combination with additional debt financing. Appendix B describes the Water Utility revenue sources, cost centers, and reserves as well as Board policy regarding finances.

As mentioned in Section 1, the projected revenue requirements are lower than last year's projection due to management actions to cut operations costs and to defer capital projects. This section will further describe the rate projection scenarios introduced in Section 1 that illustrate the potential water rates that would be needed to fund all of the postponed capital projects plus potential recycled water master plan investments (in the case of South County/Coyote Valley).

The Water Utility's revenue requirements remained relatively stable for the period from 1993 to 1998 and rates were held constant. In 1998, the utility made the first of a series of capital investments required to comply with new water quality regulations. More recently, payments for water purchased from the federal government have increased. Consequently, the District embarked on a series of rate increases that saw the M&I groundwater rate in North County increase from $240 per AF in FY 1997–98 to $405 per AF in FY 2004–05.

In the South County/Coyote Valley, the M&I groundwater rate increased from $108/AF in FY 1997–98 to $200 per AF in FY 2004–05. The increases were necessary due to the higher costs of purchased water from the federal government and the expansion of services in the areas of recycled water, water conservation, asset management, security, and groundwater quality management.

The current outlook is for lower rate increases in both zones than were projected last year to cover increases in the payments for federal water, rising water treatment costs as a result of the conversion to ozone as a primary disinfectant (North County only), and rising debt service costs associated with capital investments. The Water Utility plans to invest over $296 million (inflated dollars) in capital improvements from fiscal years 2005–06 to 2009–10.

REVIEW OF DISTRICT'S FINANCES FOR FISCAL YEARS 2003–04, 2004–05, AND 2005–06

The District's financial plans are designed to carry out the direction of the Board's Ends Policies on water supply and quality. The FY 2005–06 budget reflects a decrease in overall spending while moving forward on efforts to maintain or upgrade the District's aging facilities to enable better operations under increasingly stringent public health and environmental requirements.

Table 4-1 shows the revenue requirements that are the basis for the adopted rates, breaking out operations, water purchases, extraordinary items, and capital for fiscal years 2003–04 through 2005–06. The net requirements are the revenues that must be available from water sales, property taxes, and other sources after using debt financing and allowing for funds added to, or used from reserves. Reserves provide a balancing mechanism to smooth fluctuations in the level of revenue that must be raised from water sales in a single year. Appendix B gives a description of each of the Water Utility Reserve Funds.

TABLE 4-1
Overview of Water Utility Revenue Requirements
($ Millions)

Revenue Requirements	Actual 2003–04	Adjusted Budget 2004–05	Adopted Budget 2005–06
Operations	72.1	84.2	77.7
Debt Service	12.2	8.0	6.0
Water Purchases			
Federal Water	12.0	17.9	24.0
State Water	13.3	17.8	15.5
Extraordinary Items (Includes Advances, Repayments and Transfers)	1.4	(1.5)	11.7
Capital Projects	95.4	93.9	44.7
TOTAL REQUIREMENTS	**206.4**	**220.3**	**179.6**
Increase/Decrease in Reserves	(5.1)	(7.4)	(20.7)
Carryforward Capital Reserves	(53.5)		
Less Revenue Bond Proceeds/ Other Debt	0.0	66.9	13.5
Net Requirements From Water Utility Revenues	**147.8**	**146.1**	**145.4**

Fiscal Year 2003–04

During FY 2003–04, significant operating outlays totaling $29.5 million were made in the following continuing programs:

- $5.1 million for efforts in Water Conservation Program
- $4.6 million for Water Recycling studies, planning, and financial incentives
- $5.7 million for recharge and raw water field facility maintenance
- $11.2 million for General Operations at the three treatment plants
- $2.9 million for Water District laboratory to ensure drinking water quality

Table 4-1 shows extraordinary items netting to $1.4 million. These items are comprised of $0.74 million for the District's Information Systems Program (ISMP), $1.62 million to the General Fund for capital programs administration, $0.3 million to the General Fund for compensated absences, and a receipt of $1.3 million to repay an inter-fund loan for the Almaden campus energy project. Water purchases totaled $25.3 million and capital projects totaled $95.4 million in FY 2003–04. Reserves decreased by approximately $5.1 million to pay for water utility outlay requirements.

Fiscal Year 2004–05

Operations requirements for FY 2004–05 are budgeted to increase by $12.1 million over actual requirements for FY 2003–04 across a variety of activities, including water banking, conservation, perchlorate response, and groundwater quality management. Capital appropriations for this fiscal year total $93.9 million, of which $32.5 million goes to further design and construction efforts at the water treatment plants.

Table 4-1 shows that an estimated $74.3 million will come from debt and reserves to fund the capital budget for FY 2004–05.

Fiscal Year 2005–06

For FY 2005–06, budgeted operations costs are expected to be $6.5 million less than FY 2004–05. The cost of water purchased from the federal and state projects continues to be the largest expense item at $24.0 million and $15.5 million, respectively. The combined water purchase costs increased by $3.8 million versus the prior year. Although federal water payments increased due to the renewal of the CVP contract, state water costs were lower by $2.3 million due to a revised cost forecast from DWR.

In FY 2005–06, the capital appropriation is $44.7 million. The largest portion of this estimate is for the purchase of more water banking storage capacity. It also provides for the continued construction of the Stage 2 improvements at the water treatment plants and the purchase of spare pipes under the Water Infrastructure Baseline Improvement Project.

For FY 2005–06, Table 4-1 shows total requirements of $179.6 million to be met from a combination of current revenues, reserves, and debt. The adopted rates shown in Table 1-1 will generate approximately $120.0 million in revenues from water usage. Property taxes are projected to be $17.9 million, and interest earnings and other revenue are projected to be $7.5 million for total revenues of $145.4 million. The table shows a net decrease in reserves of $20.7 million. An $11.1 million transfer from the Water Enterprise fund for the property tax shift implemented by the state is funded by reserves, which were sourced by property tax revenues in past years.

Financing and Bond Ratings

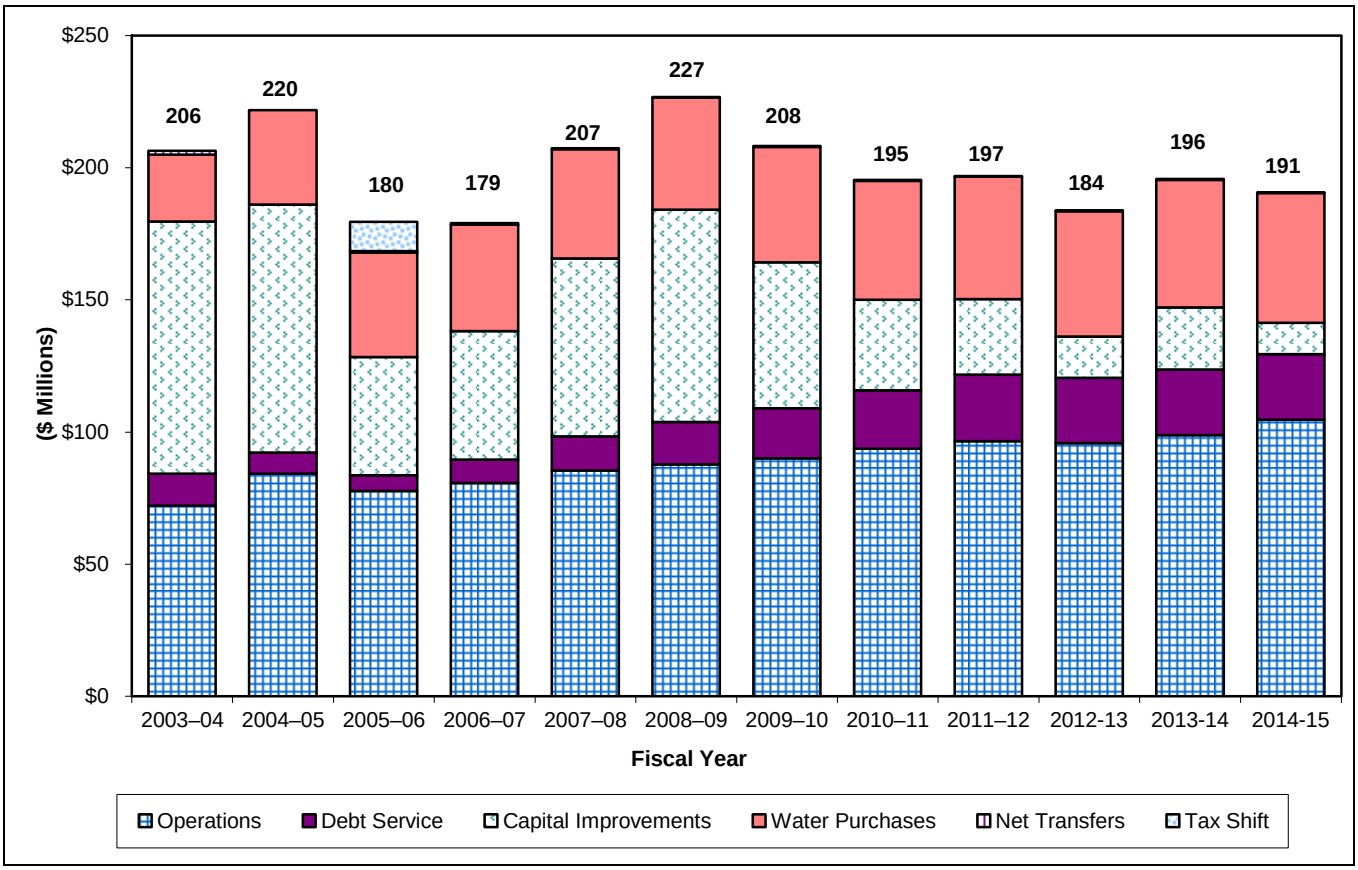
The Water Utility plans to use commercial paper debt to raise $13.5 million in financing for the capital improvement plan in FY 2005–06. For the next five years, the District will use debt in conjunction with increasing water rates to meet capital improvement needs totaling $296 million (in inflated dollars) for the five fiscal years 2005–06 though 2009–10. This funding will be used to upgrade many treatment plant systems that are needed to support the process revisions planned as part of the Water Treatment Improvement Projects Stage 2 work.

The Water District received ratings of P-1 and A-1+ from Moody's and Standard & Poor's respectively on the issuance of its commercial paper program in 2003. These ratings reflect the District's strong financial position and the highly rated creditworthiness of District issued securities. The ratings are either the highest or among the highest for a water-related governmental entity in the state of California, which helps keep interest costs borne by the District at a minimum.

OVERVIEW OF LONG-TERM CAPITAL AND OPERATING PLANS

To develop a rate structure that will support planned work, staff analyzes the immediate needs of the District as well as anticipated requirements in the years to come. The projected outlays for the next ten years (see Figure 4-1) include capital and operating costs for the water quality and water supply issues discussed in Section 3. The continuing appropriations for the capital investment needed to comply with water quality regulations can be seen in the capital portion of the bars. As capital appropriations for completion of water treatment improvement projects at Penitencia and Santa Teresa water treatment plants begin to taper off by FY 2006–07, asset management costs are anticipated to grow to replace aging equipment and facilities. In FY 2008–09, construction at Rinconada Water Treatment Plant is expected to be well underway. A detailed listing of the capital improvement projects is in Table 3-1.

FIGURE 4-1
Water Enterprise Ten-Year Program—Projected Uses of Funds



The annual operations expenditures are projected to decrease slightly in FY 2005–06 due to District efforts to cut staffing, overhead, and services and supplies, partially offset by increases in imported water costs. Longer term, water treatment costs are projected to increase as the ozonation processes come on line at the completion of the Stage 2 construction.

LONG-TERM FUNDING APPROACH FOR THE WATER UTILITY

The financial plan for the next ten years combines the commercial paper program with current revenues (from water sales), periodic revenue bond sales, reserves, and other sources to satisfy total expenses each year. The immediate challenge is to provide $296 million (in inflated dollars) for capital facilities and equipment between fiscal years 2005–06 and 2009–10; therefore, short-term and long-term debt financing is planned each year. Table 4-2 shows the funding sources for capital projects in fiscal years 2004–05 through 2009–10.

TABLE 4-2
Capital Improvement Projects Funding Sources
Fiscal Years 2004–05 Through 2009–10

(Millions of Dollars)

Water Utility Capital Improvement Projects $ Millions	04/05 Adjusted Budget	05/06 Adopted Budget	06/07 Projection	07/08 Projection	08/09 Projection	09/10 Projection
Funding Sources						
Current Revenue (i.e., operating income, operating reserves, and transfers)	17.1	22.5	25.5	15.1	14.0	14.1
Future Year's Capital Reserves	8.0	-0.3	-2.2	2.5	-5.8	-0.2
CVP Reserves	1.9	9.0	0	0	0	0
Revenue Bond Proceeds/ Other Debt	66.9	13.5	25.3	49.7	72.2	41.3
Total Water Utility Capital Improvements Funded (Inflated Dollars)	**93.9**	**44.7**	**48.6**	**67.3**	**80.4**	**55.2**

Figure 4-2 shows the water rate projections that in combination with debt financing will fund revenue requirements to FY 2014–15. Over a three-year period, North County M&I rates are projected to increase from $405 per AF in FY 2004–05 to $450 per AF in FY 2007–08, an average increase of 3.6 percent per year. This is a significant reduction compared to last year's 8.3 percent per year rate of increase over the same three year period. The projected growth in South County/Coyote Valley M&I rates is from $200 per AF in FY 2004–05 to $245 per AF in FY 2007–08, an average increase of 7.0 percent per year. This is a significant reduction compared to last year's 17 percent per year rate of increase of the same three year period.

The reduction in rates from last year's projection to this year's projection is due to management actions to cut operations costs and to defer capital projects. The following actions have been taken:

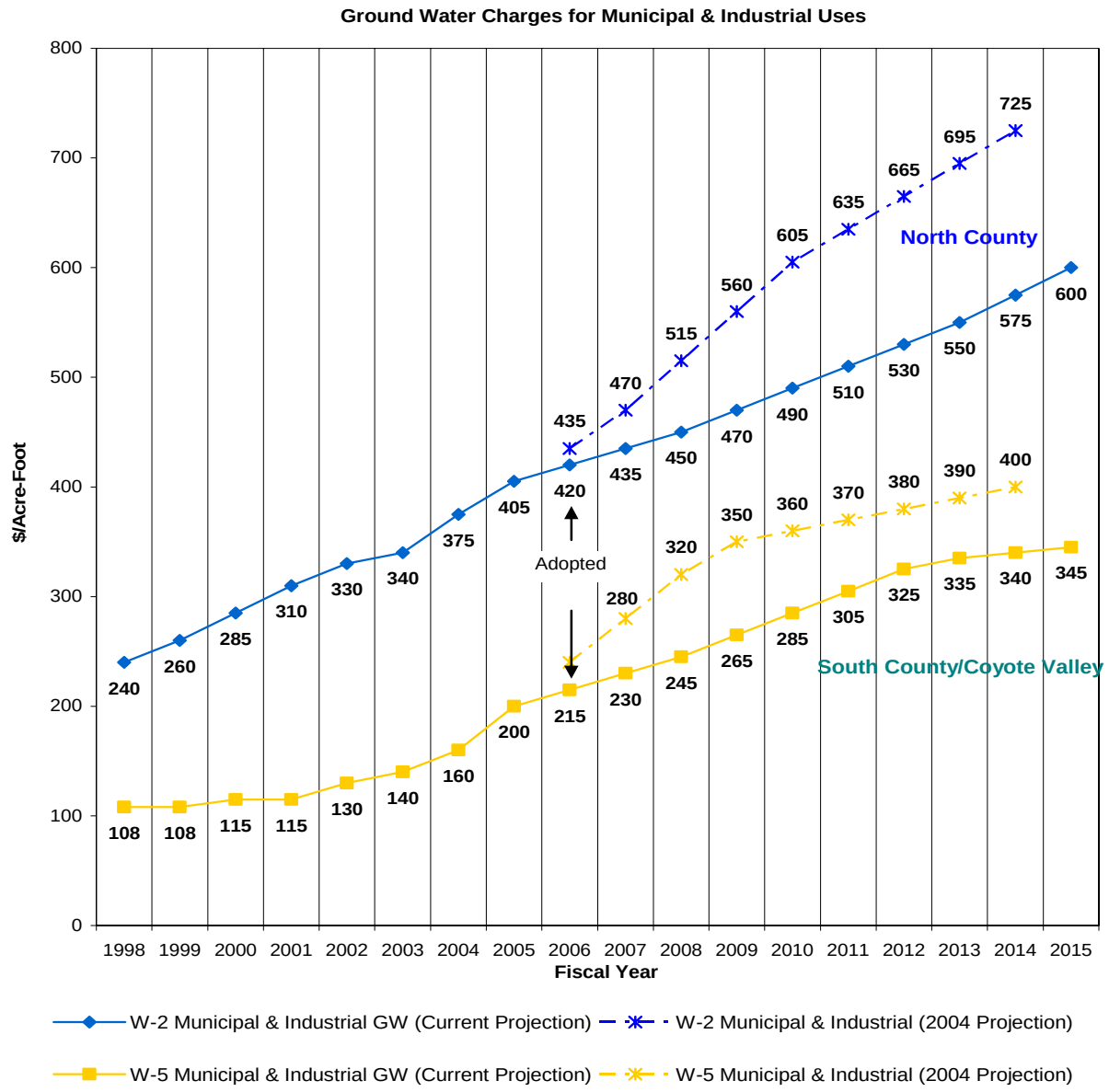
1. 20 vacant positions were eliminated from the Water Utility to cut on-going expenses beginning in the current budget year and in the future. Operations salaries and benefits were reduced by $1.5 million versus the FY 2004–05 budget.
2. Consultants, supplies, services, and other operations expenses were reduced by $0.5 million compared to the FY 2004–05 budget.
3. Many capital projects were postponed indefinitely, leaving only the most critical projects funded in the near term (see Table 4-3).
4. To help fund capital projects and absorb the impact of the property tax shift, reserves were reduced by $20 million in FY 2005–06.
5. Administrative expenses were cut during the budget process resulting in a reduction in overhead expenses by 10 percent. The Water Utility share of operations overhead was reduced by $2.4 million versus FY 2004–05 budget.
6. The District reached a favorable settlement with the U.S. Bureau of Reclamation over a dispute regarding the costs of imported water from the Central Valley Project (CVP) after several years of talks. This settlement has reduced the projected costs of imported CVP water by approximately $11 million from last year's projection for the three years FY 2005–06 to FY 2007–08.

Table 4-3 shows the lower priority capital projects that have been postponed and are not funded in the current rate projection. The postponed capital projects total approximately $203 million (uninflated) over the next 10 years. Later in Section 4, a rate projection scenario is presented that illustrates the required rate projection necessary to fund the postponed capital projects plus potential recycled water master plan investments.

Table 4-4 shows the projected revenues, expenditures, and reserves over the next ten years including proceeds from commercial paper and revenue bonds of $66.9 million dollars in FY 2004–05 and $13.5 million in FY 2005–06. By financing with a combination of debt, current year revenue, and reserves, the District is able to meet its capital investment plan. However, the group of reserve funds for the purpose of rate stabilization is projected to remain significantly depleted.

Using currently projected capital appropriations, the District will see debt service rise from $8 million in FY 2004–05 to nearly $19 million in FY 2009–10. This increase results from anticipated bond and commercial paper issuances. Total outstanding debt (excluding general obligation bonds) is projected to increase from $123 million in FY 2004–05 to $326 million in FY 2009–10.

FIGURE 4-2
Ten-Year Rate Projection



Note: The current rate projection includes high priority capital only. Postponed capital projects are excluded.

TABLE 4-3
List of Capital Projects Postponed Indefinitely

($ in Thousands, Uninflated)

	05/06 Adopted Budget	06/07 Projection	07/08 Projection	08/09 Projection	09/10 Projection	10/11-14/15 Projection
SOURCE OF SUPPLY						
Advanced Recycled Water Trtmt Facility Construction	-	-	-	-	-	-
* San Luis Reservoir Lowpoint (Solution)	-	-	-	-	-	100,000
* Anderson Reservoir Bank Erosion	-	174	335	2,000	1,666	-
* Recharge Ponds (IWRP No Regrets)	-	-	-	6,525	20,475	1,750
* Lower Priority Asset Mgmt	-	2,229	3,703	3,169	-	6,892
* South County Pipeline Right of Way	-	-	-	233	179	1,250
* Pacheco Conduit Bifurcation Dewater	-	-	-	287	189	1,505
	-	-	-	-	-	-
Subtotal	**-**	**2,403**	**4,038**	**12,214**	**22,509**	**111,397**
RAW WATER TRANSMISSION & DISTRIBUTION						
* San Pedro Recharge Facility	-	155	313	22	22	-
* Lower Priority Asset Mgmt	-	669	1,111	951	-	2,067
Valve 906 Low Flow Bypass	-	107	20	-	-	-
Vasona Pumping Plant Long Term	-	282	159	3,003	-	-
* Church Ave Diversion	-	227	407	846	411	-
Coyote PP Adj Speed Drive Replacement	-	318	351	445	1,810	3,480
Subtotal	**-**	**1,758**	**2,361**	**5,267**	**2,243**	**5,547**
WATER TREATMENT						
Treatment Plant Filter Backwash Aid	-	-	-	175	202	1,093
STWTP Local Filter Backwash Control	-	342	-	-	-	-
RWTP Filter Cell Isolation Valves	-	-	-	91	264	-
RWTP Chemical Storage	-	-	-	-	-	2,451
RWTP Building Modifications	-	-	-	-	-	6,782
TP Electrical and Control Systems Improvement	-	90	200	220	880	260
Lower Priority Asset Mgmt	-	669	1,111	951	-	2,067
Subtotal	**-**	**1,101**	**1,311**	**1,437**	**1,346**	**12,653**
TREATED WATER TRANSMISSION & DISTRIBUTION						
Security Improvement	-	2,000	2,000	987	-	-
Treated Water Distribution Flow Meter	-	100	400	-	-	-
Lower Priority Asset Mgmt	-	892	1,481	1,268	-	2,757
West Side Distribution System Study	-	-	304	202	-	-
Parallel East Pipeline Tie-in	-	-	169	533	2,060	-
Subtotal	**-**	**2,992**	**4,354**	**2,990**	**2,060**	**2,757**
	-	-	-	-	-	-
TOTAL	**-**	**8,253**	**12,064**	**21,908**	**28,158**	**132,354**

Note: The asterisked projects would benefit the South County/Coyote Valley and therefore would be funded in part or in whole by the South County/Coyote Valley.

TABLE 4-4
Ten-Year Water Utility Plan

($ in Thousands)

	Actual	Adjusted Budget	Adopted Budget	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected
Revenue Sources:	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09	2009–2010	2010–11	2011–12	2012-13	2013-14	2014-15
Groundwater Charges	$46,144	$50,100	$50,666	$52,820	$55,167	$58,348	$61,369	$64,460	$67,267	$69,727	$72,541	$75,356
Surface/reclaimed Water Sales	$734	$937	$1,146	$1,215	$1,282	$1,355	$1,430	$1,508	$1,590	$1,670	$1,723	$1,777
Treated Water Charges	$61,688	$65,145	$68,197	$71,597	$73,636	$76,356	$79,075	$81,795	$84,515	$87,234	$90,634	$94,033
Inter-governmental services	$3,412	$1,200	$2,545	$1,765	$1,221	$1,119	$1,055	$1,076	$1,093	$1,111	$1,129	$1,148
Total Operating Revenue	**$111,978**	**$117,382**	**$122,554**	**$127,397**	**$131,306**	**$137,178**	**$142,929**	**$148,839**	**$154,465**	**$159,742**	**$166,027**	**$172,314**
Non-Operating Income:												
Property Taxes	$19,548	$19,795	$17,904	$21,140	$21,263	$22,388	$23,338	$23,476	$23,492	$23,222	$23,374	$23,532
Interest	$4,959	$2,516	$2,487	$1,016	$1,034	$1,106	$1,214	$1,180	$1,184	$1,224	$1,221	$1,422
Capital Contributions	$6,304	$2,461	$1,608	$2,274	$2,274	$0	$0	$0	$0	$0	$0	$0
Other	$4,987	$3,898	$832	$4,766	$266	$266	$266	$266	$266	$266	$266	$266
Total Non-Operating Income	$35,798	$28,670	$22,831	$29,196	$24,837	$23,760	$24,818	$24,922	$24,941	$24,713	$24,862	$25,220
Total Revenue	**$147,776**	**$146,052**	**$145,385**	**$156,592**	**$156,142**	**$160,938**	**$167,747**	**$173,761**	**$179,406**	**$184,455**	**$190,889**	**$197,534**
Operating Outlays:												
Operations	$92,950	$115,043	$112,622	$118,121	$122,540	$125,393	$126,597	$131,944	$136,129	$139,288	$142,828	$146,792
Operating Projects	$4,421	$4,853	$4,551	$2,915	$4,239	$4,647	$7,116	$6,697	$6,755	$3,992	$4,284	$7,031
Debt Service	$12,202	$7,986	$6,003	$8,854	$12,928	$16,029	$18,957	$22,127	$25,175	$24,765	$24,761	$24,759
Total Operating Outlays	**$109,572**	**$127,882**	**$123,176**	**$129,889**	**$139,707**	**$146,069**	**$152,669**	**$160,768**	**$168,059**	**$168,045**	**$171,874**	**$178,581**
Excess (Deficit) Revenues vs Operating Outlays	$38,204	$18,170	$22,209	$26,703	$16,435	$14,869	$15,077	$12,993	$11,347	$16,410	$19,015	$18,953
Unreserved balance beginning of year	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Balance Available for Capital and Reserves	**$38,204**	**$18,170**	**$22,209**	**$26,703**	**$16,435**	**$14,869**	**$15,077**	**$12,993**	**$11,347**	**$16,410**	**$19,015**	**$18,953**
Total Capital Appropriations	**$95,429**	**$93,917**	**$44,698**	**$48,574**	**$67,324**	**$80,408**	**$55,206**	**$34,313**	**$28,516**	**$15,542**	**$23,554**	**$11,866**
Other Financing Sources/ (Uses):												
Operating Transfers Out - ISMP	($738)	($597)	$0	($290)	($66)	$0	$0	$0	$0	$0	$0	$0
Operating Transfers Out - Other	($1,624)	$598	($300)	$0	$0	$0	$0	$0	$0	$0	$0	$0
Operating Transfers Out - Solar Project	$1,279	$1,955	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Transfer out - comp absences	($318)	($503)	($318)	($318)	($318)	($318)	($318)	($318)	($318)	($318)	($318)	($318)
Transfer out - Prop Tax Shift	$0	$0	($11,066)	$0	$0	$0	$0	$0	$0	$0	$0	$0
Transfer out - Almaden Campus	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Operating Transfers out - FAHCE	$0	$0	$0	$0	$0	$0	$0	($2,593)	($2,464)	($3,721)	($3,563)	$0
Revenue Bond/CP Proceeds	$0	$66,942	$13,500	$25,261	$49,702	$72,213	$41,291	$21,152	$23,274	$2,558	$8,835	$6,185
CVP Reserve Transfer to fund capital												
Total Other Financing Sources/ (Uses)	**($1,401)**	**$68,395**	**$1,816**	**$24,653**	**$49,318**	**$71,895**	**$40,973**	**$18,241**	**$20,492**	**($1,481)**	**$4,954**	**$5,867**
Balance Avaliable	**(58,627)**	**(7,351)**	**(20,672)**	**2,782**	**(1,571)**	**6,356**	**844**	**(3,080)**	**3,323**	**(614)**	**414**	**12,953**
Appropriated to/(from) Reserves:												
Operating Reserves:												
Contingency Appropriation	$1,197	$1,249	$1,232	$1,299	$1,397	$1,461	$1,527	$1,608	$1,681	$1,680	$1,719	$1,786
Working Capital Appropriation	$9,974	$10,404	$10,265	$10,824	$11,642	$12,172	$12,722	$13,397	$14,005	$14,004	$14,323	$14,882
Supplemental Water Supply Appropo.	$589	$589	$589	$589	$589	$589	$589	$589	$589	$589	$589	$589
Rate Stablization Reserve Fund	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000
San Felipe Appropriation	$3,128	$3,262	$3,262	$3,262	$3,262	$3,262	$3,262	$3,262	$3,262	$3,262	$3,262	$3,262
Environmental Water Account	$921	$921	$921	$921	$921	$921	$921	$921	$921	$921	$921	$921
Total Operating Reserves	**$18,809**	**$19,424**	**$19,268**	**$19,895**	**$20,811**	**$21,405**	**$22,021**	**$22,777**	**$23,457**	**$23,456**	**$23,813**	**$24,439**
Capital Reserves:												
Designated for Fixed Assets	$1,816	$1,816	$1,816	$1,816	$1,816	$1,816	$1,816	$1,816	$1,816	$1,816	$1,816	$1,816
Designated for Future Years' Capital	$14,091	$6,124	$6,393	$8,549	$6,062	$11,824	$12,052	$8,216	$10,859	$10,246	$10,303	$22,630
Total Capital Reserves	**$15,907**	**$7,940**	**$8,209**	**$10,365**	**$7,878**	**$13,640**	**$13,868**	**$10,032**	**$12,675**	**$12,062**	**$12,119**	**$24,446**
Reserves for Contingent Liabilities:												
PERS Stabilization Reserve	$785	$785	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bureau Repayment Appropriation	$25,000	$25,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000
Total Reserves for Contingent Liabilities	**$25,785**	**$25,785**	**$5,000**	**$5,000**	**$5,000**	**$5,000**	**$5,000**	**$5,000**	**$5,000**	**$5,000**	**$5,000**	**$5,000**
Total Appropriated to /(from) Reserves	**$60,500**	**$53,150**	**$32,477**	**$35,260**	**$33,688**	**$40,044**	**$40,889**	**$37,809**	**$41,132**	**$40,518**	**$40,932**	**$53,885**

NORTH COUNTY (ZONE W-2) FINANCES

North County (Water Charge Zone W-2) accounts for approximately 80 percent of District water consumption, but because of higher water rates due to higher North County costs, over 95 percent of the Water Utility's revenue. As shown in Table 1-1, the Board adopted a $420/AF groundwater charge for non-agricultural (M&I) water and $42.00/AF for agricultural water for FY 2005–06.

Table 4-5 shows that total North County costs in FY 2005–06 are projected to decrease by approximately $43.8 million from FY 2004–05. Capital appropriations are projected to decrease by $49.2 million to concentrate available staff on high priority projects, while lower priority projects have been delayed. Delaying the start of lower priority capital projects reduces the size of future rate increases. Adjustments to the capital program were a significant factor in keeping the adopted water rate for FY 2005–06 at $15 per AF less than planned last year.

FY 2005–06 capital improvement costs, while still substantial, are much less than they would have been because Rinconada Stage 2 Water Treatment Improvement Project and Lenihan Dam Outlet Modifications were delayed by one year. Delaying these projects allows the District to postpone issuing a revenue bond from FY 2005–06 to FY 2006–07 and minimize debt service. In the case of the Rinconada Stage 2 Water Treatment Improvement Project, the delayed schedule will still meet the Environmental Protection Agency's (EPA) deadline for water quality regulatory compliance.

Operations costs are projected to decrease by $8.9 million from the prior year due to cuts in staffing, overhead, and supplies and services. Imported water payments on the other hand, are projected to increase as a result of transitioning from lower "contract" rates to higher "cost of service" rates triggered by contract renewal. The North County shortfall of $17.8 million in FY 2005–06 reduces estimated year-end reserves.

Debt financing needs are projected to be $13.5 million in FY 2005–06 and will be funded by the District's $100 million commercial paper program. By the end of FY 2005–06, about $82 million of commercial paper will be needed to fund projected capital spending.

TABLE 4-5
Overview of North County Finances

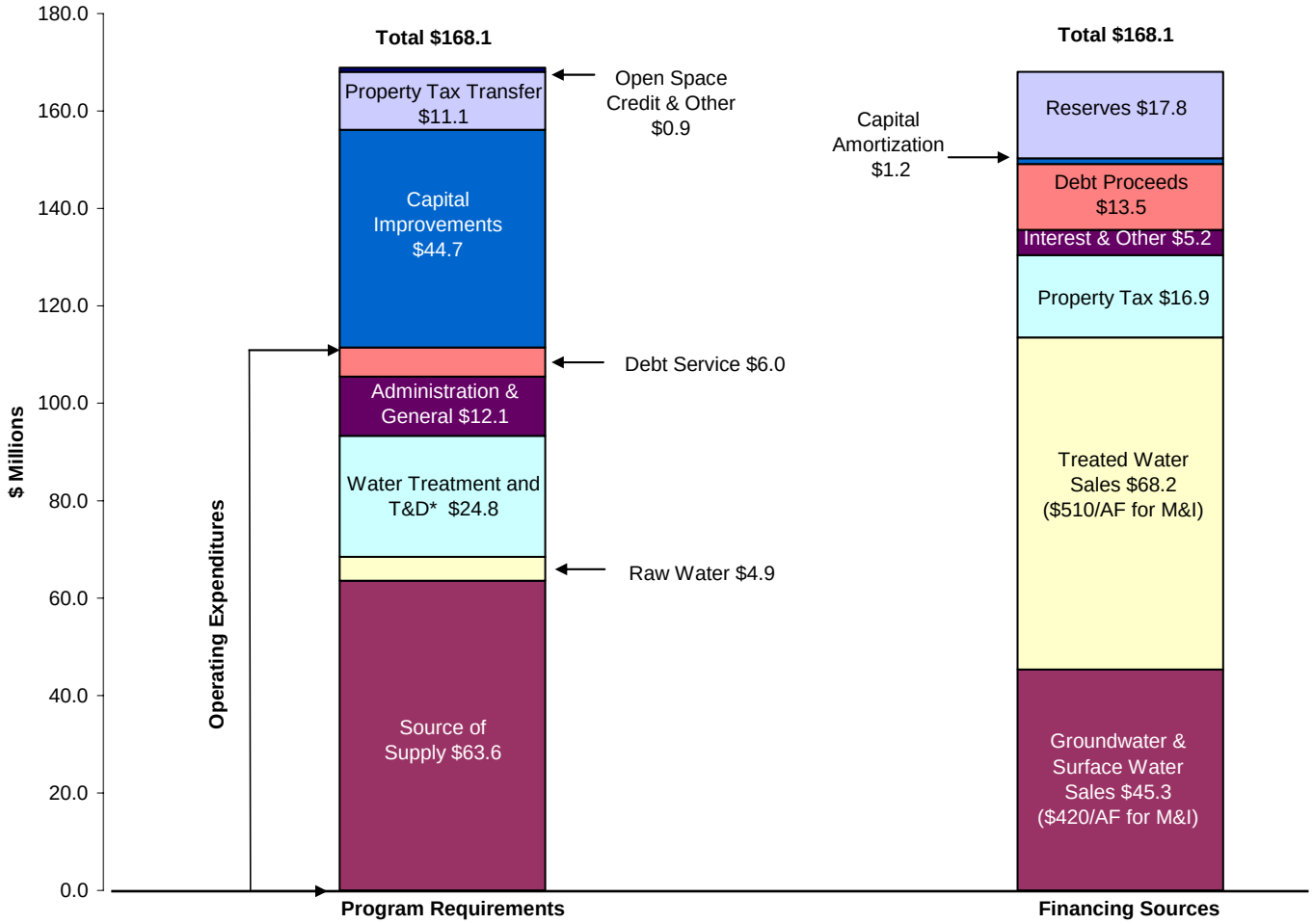
($ Millions)

	Actual 2003–04	Adjusted Budget 2004–05	Adopted Budget 2005–06
Allocated Revenue			
Operating & Non-operating Revenue	$141.24	$138.02	$135.60
Revenue Bonds/ Other Debt Financing	$0.00	$66.94	$13.50
Capital Amortization from South Co./Coyote Valley	$1.21	$1.21	$1.21
Carryforward Capital Reserves	$53.52		
Total Allocated Revenue	**$195.97**	**$206.18**	**$150.31**
Allocated Costs			
Operation	$77.41	$83.12	$74.26
Imported Water	$24.37	$34.08	$37.23
Capital Improvements	$95.43	$93.92	$44.70
Transfer for Property Tax Shift			$11.07
Less Open Space Credit to South/Coyote AG	$0.68	$0.79	$0.85
Total Allocated Costs	**$197.89**	**$211.91**	**$168.11**
North County Surplus (Shortfall)	($1.92)	($5.73)	($17.79)

Figure 4-3 shows the relationship between expenditures and the projected sources of revenue in Zone W-2. The groundwater charges adopted by the Board for FY 2005–06 are necessary to conduct “district activities in the protection and augmentation of the water supplies for users within a zone or zones of the district which are necessary for the public health, welfare, and safety of the people of this state” (District Act, Section 26.3).

FIGURE 4-3
Fiscal Year 2005–06
North County Water Utility Program Requirements and Financing Sources

($ Millions)



*T&D = Transmission and Distribution

SOUTH COUNTY/COYOTE VALLEY (ZONE W-5) FINANCES

Rates in the South County/Coyote Valley (Water Charge Zone W-5) are based on the costs of specific facilities, imported water costs, and operations costs related to managing the groundwater basin, ensuring water quality, and measuring water supplies and usage. Under current policies for managing the finances of South County/Coyote Valley, water rates are set to maintain an approximate balance between revenues and costs. The cumulative balance is tracked, and projected water charges are set to keep the cumulative balance near zero, while maintaining relative stability in South County/Coyote Valley water rates. Successive years of surplus or shortfall can occur, but rates are adjusted only when the trend in the cumulative surplus or shortfall shows a significant imbalance.

Water Utility reserves and federal grants will fund the District's perchlorate contamination response program for the South County/Coyote Valley. The program calls for spending $2 million to $3 million per year over the next several years in an effort to restore the quality of the groundwater in the Llagas Subbasin. The adopted rates do not include recovery of the perchlorate clean-up program costs. Staff is tracking the costs of the perchlorate response program separately in an effort to obtain full reimbursement. If the District is not successful in obtaining full reimbursement, the cumulative revenue shortfall in South County/Coyote Valley would worsen.

For South County/Coyote Valley, the Board adopted a $215/AF groundwater charge for M&I water and $21.50/AF for agricultural water. With these adopted rates for FY 2005–06, costs are estimated to exceed revenues by approximately $1.3 million in FY 2005–06 (see Table 4-6). FY 2005–06 budgeted revenues are boosted by a $2.2 million grant from the state to be split between the District and the South County Recycled Wastewater Authority for a recycled water expansion project. The split is assumed to be 50/50 but may change, based on negotiations. On a cumulative basis, revenues are estimated to exceed costs by $0.07 million at the end of FY 2005–06 not including the costs of the perchlorate response program.

The cumulative South County/Coyote Valley revenue versus cost balance was credited $3.7 million at the end of FY 2002-03. The District established a contingent reserve to pay for accumulating unpaid costs for Central Valley Project water during the 1990's. The South County/Coyote Valley contributed its proportionate share to the reserve over several years as the District's deficit grew. At the present time, it does not appear that the Bureau Repayment Reserve will be needed to pay the accumulated CVP deficit, as originally intended. Consequently, staff credited the South County/Coyote Valley for the $3.7 million it contributed through FY 2002-03 and recalculated the historical running balance of revenues versus costs. The change resulted in a balance of positive $4.2 million at the end of FY 2002-03 versus a balance of $0.5 million.

Figure 4-4 shows the projected cumulative revenue shortfall under the adopted rate projection for South County/Coyote Valley and includes the $3.7 million credit applied in FY 2002–03. Under this rate projection, cumulative costs will exceed cumulative revenues and later be balanced by FY 2012–13. The rate projection assumes an average increase of 7.2 percent between FY 2005–06 and FY 2011–12, at which point the rate of increase is scaled back as cumulative revenues and costs approach balance.

Increases in projected imported water costs are driven by higher payments for imported CVP water as a result of transitioning from lower "contract" rates to higher "cost of service" rates triggered by contract renewal. The higher payments are also partially driven by increases in the projected usage of CVP water to maintain water supply reliability in this fast-growing area of the County.

Operations costs are projected to increase slightly in FY 2005–06. Reductions in staffing, supplies and services and overhead were slightly more than offset by cost increases in several projects:

1. The initialization of a South County Water Supply Plan project to address the Llagas groundwater basin water supply plan.
2. The North County and South County/Coyote Valley are both being allocated their fair share of the

costs of the Habitat Conservation Plan activities, which address the potential endangered species impacts of water utility operations.

3. South County/Coyote Valley now pays for the costs of Llagas fire management activities, which address potential water quality and water supply degradation from wildfires.
4. An increase in resources devoted to groundwater supply management which include development of a South County/Coyote Valley groundwater model, and more monitoring of water level and quality.

Current Board policy adds an "open space" credit to agricultural revenues. The purpose of the credit is to preserve the open space benefits provided by agricultural lands by keeping agricultural rates low. The credit to agricultural water users in a water charge zone amounts to the difference in revenue from agricultural water use charged at a rate equivalent to 10 percent of the zone's M&I rate and that which would be generated if the agricultural rate were 25 percent of the zone's M&I rate. A Board policy setting the agricultural water charge at one-tenth of the zone's M&I rate was instituted in July 1998 and formally incorporated into the pricing policy in Resolution No. 99-21 (see Appendix B). As shown in Table 4-6, the Open Space Credit received by the South County/Coyote Valley was $0.68 million in FY 2003–04, estimated at $0.79 million in FY 2004–05, and projected to be $0.85 million in FY 2005–06. As the M&I rates for both zones are projected to grow over the next ten years, the amount of the Open Space Credit available to support agricultural water revenues will continue to increase.

Figure 4-5 shows the relationship between expenditures and projected sources of revenue in South County/Coyote Valley (Zone W-5) for FY 2005–06. The groundwater charges adopted for FY 2005–06 in Zone W-5 are necessary to conduct "district activities in the protection and augmentation of the water supplies for users within a zone or zones of the district which are necessary for the public health, welfare, and safety of the people of this state" (District Act, Section 26.3).

TABLE 4-6
Overview of South County/Coyote Valley Finances

($ Millions)

	Actual 2003–04	Adjusted Budget 2004-05	Adopted Budget 2005-06
Allocated Revenue			
Operating & Non-operating Revenue	$6.54	$7.23	$8.88
Received Open Space Credit from North County	$0.68	$0.79	$0.85
Total Allocated Revenue	**$7.21**	**$8.02**	**$9.73**
Allocated Costs			
Operation	$5.73	$7.44	$7.53
Imported Water	$0.92	$1.58	$2.28
Amortized Capital Improvements	$1.21	$1.21	$1.21
Interest (earned)/due Utility Reserves		($0.07)	($0.02)
Total Allocated Cost	**$7.87**	**$10.16**	**$11.01**
Surplus (Shortfall)	**($0.65)**	**($2.14)**	**($1.28)**
Cumulative Balance	$3.35	$1.21	($0.07)

FIGURE 4-4
South County/Coyote Valley Cumulative Revenue Surplus/Shortfall Projection

($ Thousands)

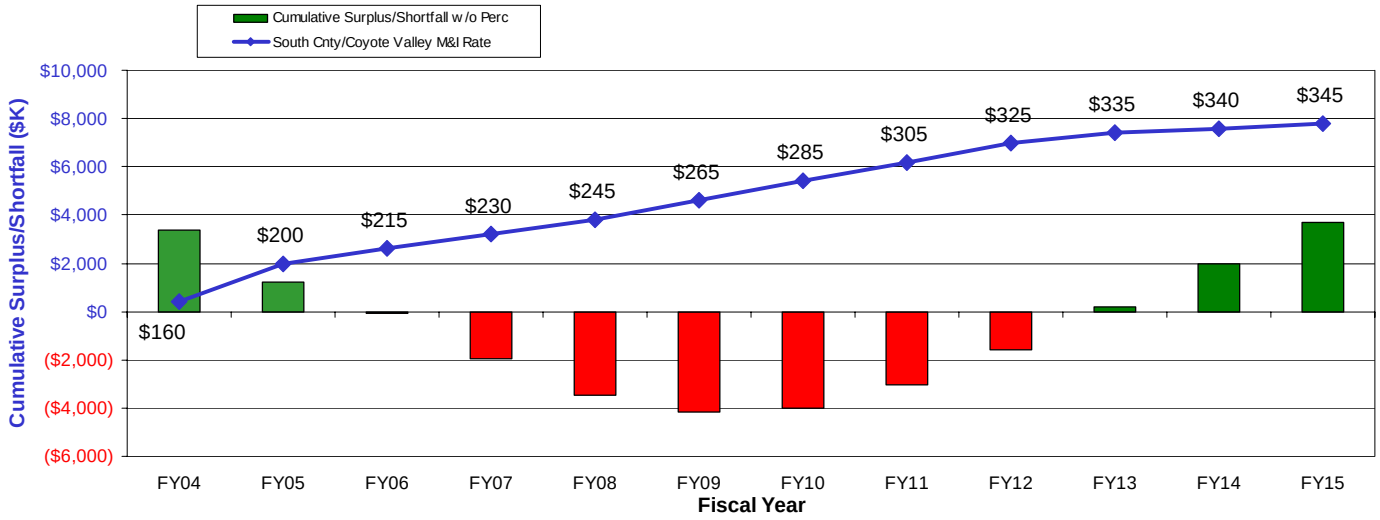
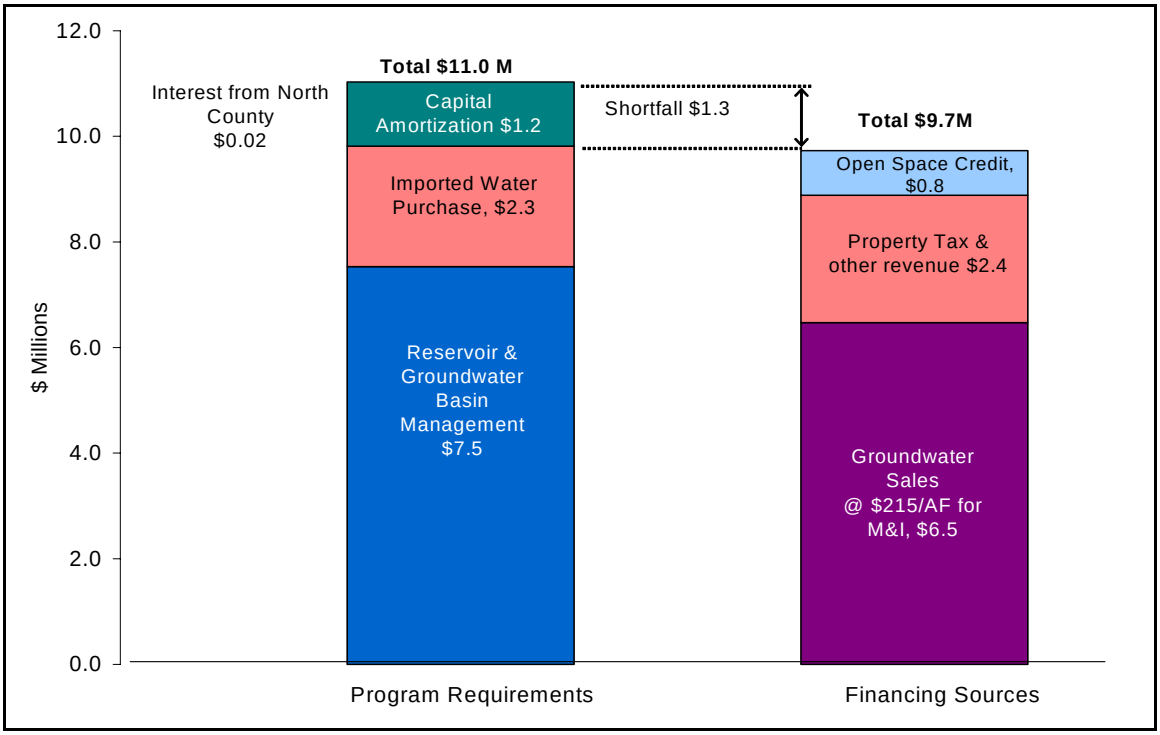


FIGURE 4-5
Fiscal Year 2005–06
South County/Coyote Valley Water Utility Program Requirements and Financing Sources

($ Millions)



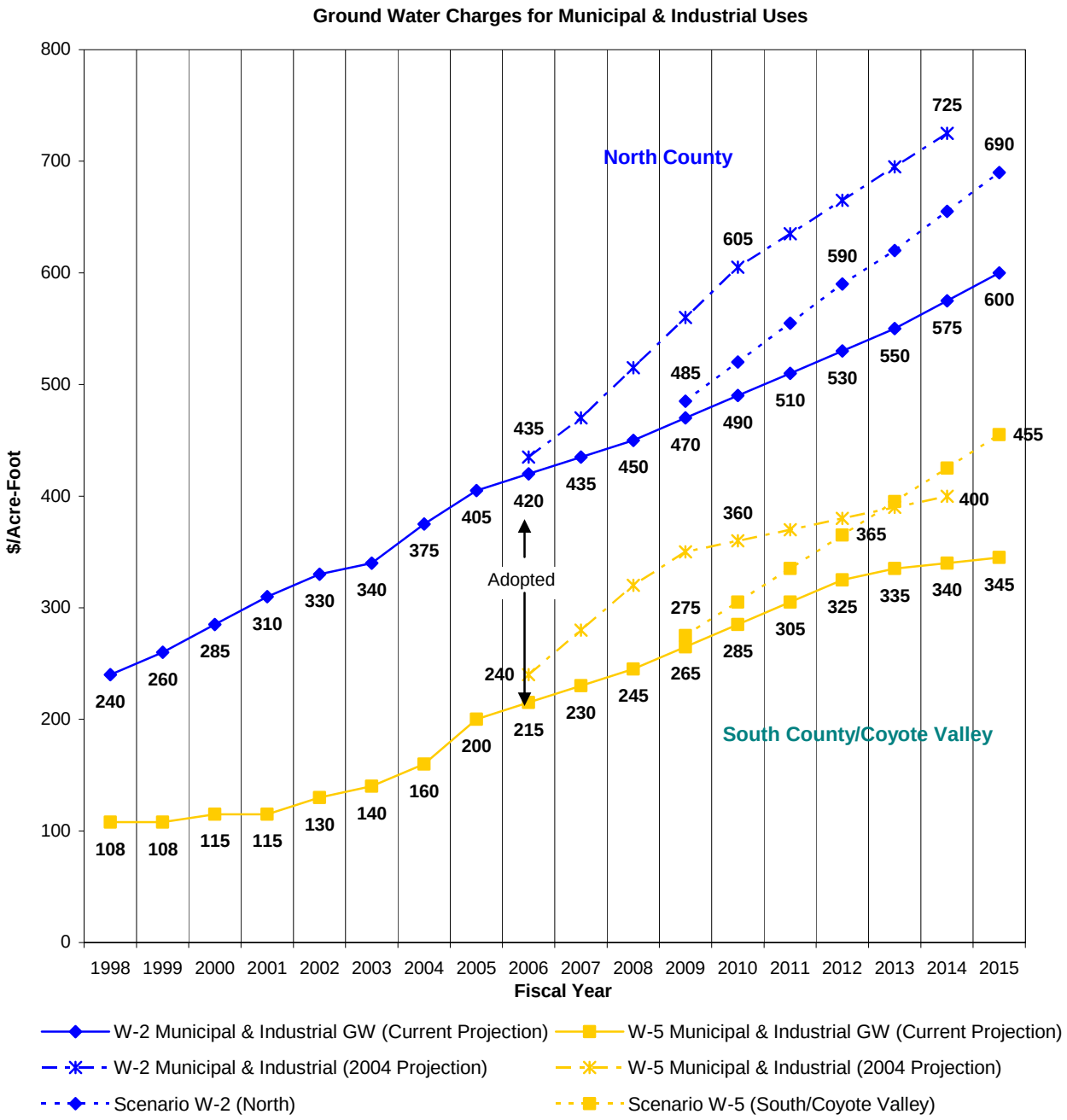
RATE PROJECTION WITH EXPANDED CAPITAL SCENARIO

A rate projection with expanded capital scenario for both zones was analyzed to illustrate the potential water rates that would be needed to fund all of the lower priority capital investments that were postponed under the current rate projection shown in Figure 4-2. In this scenario, all of the projects listed on Table 4-3 were added back in to the capital cost projection. In the South County/Coyote Valley, estimated Recycled Water Master Plan investments have also been added to the capital cost projection. Figure 4-6 shows the rates required to fund the scenario beginning in FY 2008-09.

In the North County, the expanded capital scenario is still below last year's projection because of the reductions in operations costs. The South County/Coyote Valley expanded capital scenario however, includes the potential recycled water master plan investments, which were not included in last year's projection. Consequently, the expanded capital scenario crosses above last year's projection in FY 2012-13. The scenario would balance the cumulative revenue shortfall in FY 2015-16 while the current projection would balance the shortfall in FY 2012–13. The delay in balancing the cumulative revenue shortfall in the scenario is due to the gradual increase of rates in order to avoid large, potentially disruptive increases.

While the expanded capital scenario reflects a rate projection that adds back the postponed capital projects and adds the potential recycled water master plan investments, there are several potential investments with a high degree of uncertainty that are not included. For example, proposed solutions to the Bay-Delta water quality problems, possible construction of an advanced water treatment facility or other potential investments associated with the development of Coyote Valley and North San Jose, partnerships with San Francisco Public Utility Commission (SFPUC), and the full cost of potential investments to improve infrastructure reliability have not been factored into the scenario. The degree of uncertainty pertaining to these potential investments is such that it would be difficult to estimate cost or timing that could be used in a meaningful rate projection scenario.

FIGURE 4-6
Ten-Year Rate Projection with Expanded Capital Scenario



Note: The W-2 and W-5 scenarios include postponed capital projects. In addition, the W-5 scenario includes the potential Recycled Water Master Plan investments.

Appendix A

WATER UTILITY RATE COMPONENTS
AND
ADOPTED RATES

TABLE A-1
Adopted Water Rate Components for Fiscal Year 2005–06

Component	Rate ($/AF)
Basic User, Zone W-2 (North County)	
Agricultural	42.00
M&I	420.00
Basic User, Zone W-5 (South County/Coyote Valley)	
Agricultural	21.50
M&I	215.00
Treated Water Surcharge	
Contract	90.00
Noncontract*	50.00
Water Master	11.75
Capital Cost Half Road Lateral System	2.75
Available Agricultural Discounts	
Mobile Lab	3.75
INAAP	3.75

***Note:** Treated water is provided in Zone W-2, the total charge adopted for contract treated water is the sum of $420 plus $90 or $510 per AF. Non-contract water will be available only from the Rinconada Water Treatment Plant in FY 2005–06, but non-contract deliveries will likely be limited during future construction periods.

TABLE A-2
Adopted Water Charges for Fiscal Year 2005–06

Type of Charge	AG Water ($/AF)	M&I Water ($/AF)
Groundwater		
Zone W-2	$42.00	$420.00
Zone W2 with Mobile Lab & INAAP Discounts[1]	$34.50	N/A
Zone W-5	$21.50	$215.00
Zone W5 with Mobile Lab & INAAP Discounts[1]	$14.00	N/A
Surface Water[2]		
Half Road Deliveries[3]	$36.00	$229.50
Other Zone W-5 Deliveries[4]	$33.25	$226.75
Other Zone W-2 Deliveries[5]	$53.75	$431.75
Minimum Charge Zone W-5[6]	$161.25	$161.25
Minimum Charge Zone W-2[7]	$315.00	$315.00
Stored Water		
Zone W-2	$42.00	$420.00
Zone W-5	$21.50	$215.00
Treated Water		
Contract[8]	N/A	$510.00
Noncontract[9]	N/A	$470.00
Recycled Water		
Gilroy	$39.00	$156.00

[1]Agricultural water customers of the district are eligible to receive special discounts on their agricultural water rates for participating in one or both of our water management programs:

- $3.75 per acre-foot special discount for participating in our Mobile Lab evaluation service.
- $3.75 per acre-foot special discount for participating in our Infield Nutrient Assessment Assistance Program (INAAP).

[2]Surface water charge is the sum of the basic user charge plus the water master charge. It also includes the capital cost and power, wherever applicable.
[3]Half Road = Basic User (AG or M&I @ $21.50 or $215.00) + Water Master ($11.75) + Capital ($2.75).
[4]Other Zone W-5 Deliveries = Basic User (AG or M&I @ $21.50 or $215.00) + Water Master ($11.75).
[5]Other Zone W-2 Deliveries = Basic User (AG or M&I @ $42.00 or $420.00) + Water Master ($11.75).
[6]Minimum Charge W-5 = 0.75 X Basic User W-5 (M&I @ $215.00).
[7]Minimum Charge W-2 = 0.75 X Basic User W-2 (M&I @ $420.00).
[8]Treated Water Charge is the sum of Basic User ($420.00) and Treated Water Surcharge ($90.00/AF).
[9]Treated Water charge for noncontract deliveries is offered to all treated water contractors in the Rinconada Water Treatment Plant service area for deliveries from that facility. The charge for non-contract deliveries is the sum of the basic user charge ($420.00) and the treated water surcharge for non-contract water ($50.00/AF).

Appendix B

DESCRIPTION OF WATER UTILITY REVENUE SOURCES, COST CENTERS, AND RESERVES

PRICING POLICY

The District's Board adopted Resolution No. 99-21 updating the Water Utility taxing and pricing policy in March 1999. This pricing policy incorporates four concepts: (1) water pooling, (2) water facilities cost pooling, (3) water resources management, and (4) revenue pooling. The complete policy follows after page B-4. The principal update to the policy in March 1999 was the Board's setting the agricultural water rate at 10 percent of the M&I rate in both Zones W-2 and W-5. Resolution No. 99-21 is included in this appendix.

WATER CHARGES

- Water charges include a **groundwater charge**, which is equivalent to the **basic user charge**, and is associated with the benefit of groundwater supplies. The groundwater charge is tax applied to water extracted from the groundwater basin in Zones W-2 and W-5, as shown in Appendix C. The basic user charge is applied to other types of water delivered by the District. There are two rates: one for agricultural water and one for M&I water.

- A **treated water surcharge**, which is associated with the benefit of receiving treated water, is levied in addition to the basic user charge on water delivered from the District's water treatment plants.

PROPERTY TAXES

Ad valorem taxes provide revenue to support several benefits which are general in nature serving all or large areas of the County. Some of these benefits are the availability of imported water to the County, recreation associated with the District's reservoirs, and replenishment of the County's groundwater subbasins.

The District receives a portion of the 1 percent countywide tax revenues as allocated by the County Assessor. Tax Zones W-3 and W-4, as well as a countywide ad valorem tax, are part of the 1 percent allocation.

The District also levies additional ad valorem taxes under Article XIII A of the State Constitution to meet: (a) prior approved general obligation bond debt service in Zone W-1 (zones are shown on the map in Appendix C) and (b) part of the contractual obligations for California State Water Project water with a countywide tax.

DEBT FINANCING

To fund the construction of new facilities, the District has historically relied on both pay-as-you-go financing and long-term debt financing from revenue bonds as authorized by the voters in 1977. The last remaining 1977 authorized revenue bonds were sold in April 1984. In January 1984, State legislation allowed the District to seek authorization to issue revenue bonds as needed following the Board's approval. County voters approved this authorization in November 1984. The District sold an additional $30 million of revenue bonds in November 1985 to provide needed funding for ongoing projects. In August 1986, the District refunded all outstanding water revenue bonds. Again, in June 1994, the District took advantage of favorable market conditions to refund the remaining 1986 water revenue bonds. The 1994 refunding totaled $65.9 million at an effective interest rate of 5.2 percent. In December 2000, the District issued tax-exempt and taxable bonds in the amount totaling $60.3 million. In January 2003, the District decided to take advantage of the lower interest rates offered through short-term debt and entered into a $100 million commercial paper program.

WATER UTILITY RESERVES

There are multiple reserves designated in the Water Utility Enterprise Fund. Policies and procedures for fund balance reserves, as approved by the District Board of Directors in 2001 can be found on page B-11.

WATER UTILITY ZONES

The major sources of water revenue are from charges levied on all groundwater extracted within Zone W-2 and Zone W-5 of the District and from the sale of approximately 110,000 AF of treated water. Other water charges are made for surface water diversions and sales of recycled water in the Gilroy area. A brief description of each water zone (see Water Utility Zones map in Appendix C) within the Water Utility Enterprise follows:

Zone W-1: Encompasses the groundwater basin in the northern County and small peripheral areas outside the groundwater basin, with the retail service areas of privately-owned public utilities and municipal water departments using water pumped from the groundwater basin. This area provides the security for general obligation bonds. Zone W-1 comprises an area of approximately 290 square miles and includes all or portions of 13 of the County's 15 cities, plus some unincorporated territory.

Zone W-2: Encompasses the Santa Clara Valley groundwater basin north of Metcalf Road. It includes those groundwater producing facilities that benefit from recharge of the basin with local and imported water. A charge is levied for all groundwater extracted from this zone.

Zone W-3: Encompasses the Coyote and Llagas groundwater basins in the area from Metcalf Road in the north to just south of the City of Morgan Hill. Part of the County property tax within the 1 percent limit is allocated to this zone.

Zone W-4: Contains all of Zone W-2 and lands outside Zone W-2 that use or otherwise benefit from locally conserved water and from the importation and distribution of water from the South Bay Aqueduct. This area also receives an allocation of County taxes. These tax revenues are used to pay for the cost of water, recovery of accumulated overdrafts, control of land surface subsidence, and to sustain the emergency supply of water.

Zone W-5: Is comprised of the entire groundwater basin from Metcalf Road south to the Pajaro River. Charges are levied for all groundwater extracted from this zone.

Zone W-6: Represents the former Gavilan Water Conservation District and is within Zone W-5.

WATER UTILITY COST CENTERS

The Source of Supply Cost Center contains all the anticipated expenditures that relate to obtaining, producing, and protecting a water supply and includes all District conservation, recycling, and importation costs.

The Raw Water Transmission and Distribution Cost Center contains all expenditures relating to the distribution of raw water. The distribution system consists of pipelines, canals, and percolation ponds and includes the use of creek systems.

The Water Treatment Cost Center contains all expenditures associated with the treatment of water at the Rinconada Water Treatment Plant, Penitencia Water Treatment Plant, and Santa Teresa Water Treatment Plant.

The Treated Water Transmission and Distribution Cost Center contains all expenditures relating to the distribution of treated water to water utilities and includes costs associated with the treated water reservoirs, pumping plants, pipelines, and turnouts.

The Administration and General Cost Center contains all expenditures of an administrative nature, which are not assigned to one of the other four cost centers. Work performed in this cost center covers items such as the collection of groundwater charges, financial and cash flow studies, annual reports, and general water quality management and resource planning.

Appendix B

RESOLUTION 99-21

RESOLUTION NO. 99- 21

ADOPTING "WATER UTILITY TAXING AND PRICING POLICY" AND RESCINDING RESOLUTION NO. 96-82

WHEREAS, the Santa Clara Valley Water District (District) adopted a District mission, goals and objectives on February 19, 1985, in order to conduct a sound water management program that serves the community; and

WHEREAS, the District Act authorizes the District to enter into water sales contracts and to levy and collect taxes and assessments on property within the District and in the respective zones of the District and sets forth requirements for groundwater charges and rates between agricultural and nonagricultural water; and

WHEREAS, several Board resolutions, as identified in Exhibit "A," are related to the management of water resources and the implementation of this water taxing and pricing policy; and

WHEREAS, several changes which affect revenue sources and benefit distribution have occurred since adoption of Resolution No. 96-82. These changes include: (1) passage of Resolution Nos. 98-44 and 98-45 setting agricultural charges for groundwater and surface water at 10 percent of the nonagricultural charges; (2) revisions to the policy governing sale of noncontract water in 1998; (3) pending completion of an agreement to act as the wholesaler to deliver recycled water in South County.

BE IT RESOLVED, by the Board of Directors of the District as follows:

1. **The policy of the District in the areas of taxation and water pricing for water utility revenues shall be and is hereby adopted**:

   Policy Statement

   The intent of this water utility taxing and pricing policy is to provide revenue for the management of water resources and operation of the water utility enterprise. This policy establishes a framework for establishing a system of water charges as permitted by the District Act to meet revenue requirements and to allocate costs amongst the beneficiaries. The general approach is to charge the recipients of the various benefits for the benefits received from the District's comprehensive water utility program.

   The consumptive and nonconsumptive benefits provided by District water supply facilities and operations are listed and described below:

   - Provision of a water supply and effective management of water resources available to the community from a variety of sources of supply, transmission, and water treatment facilities operated by the District.

   - Protection of water quality through the purification and treatment of water and the protection of water supplies.

   - Stewardship of watersheds and riparian corridor.

   - Administration of related programs and projects such as recycled water and water conservation administered solely by the District or in partnership with another organization.

- Ancillary flood protection.
- Recreation, such as fishing, boating, picnicking, hiking, and other related recreation activities.
- Support for the economic well being of the community.
- Protection of the community infrastructure from subsidence.

2. Policy Implementation

The following water taxing and pricing concepts and framework shall be implemented in order to provide for revenue in order to continue providing direct and ancillary benefits to the customers of the District and the community of Santa Clara County.

Water Taxing and Pricing Concepts

- ***Water Pooling***: Water is considered to be a single commodity irrespective of the water's source or cost. It is a single commodity whether it is from water provided locally, imported, or recycled, and all users benefit from the availability of multiple sources of water.
- ***Water Facilities Cost Pooling***: All water supply facilities contribute to the common benefit of effective water resources management. In general, the water charges and property taxes are based on the common benefits of the capital and operations outlays, rather than reference to named facilities, with the exception of the liability for bonded indebtedness which is applied to each zone of benefit.
- ***Water Resources Management***: Water supplies are managed, through taxing and pricing, to obtain the effective utilization of the water resources of the District to the advantage of the present and future populations of the County. This concept provides for development of taxing and pricing structures that will achieve the effective use of available resources and conserve supplies for potential drought conditions.
- ***Revenue Pooling***: For the most part, water utility revenues are collected in a common fund and not designated for a specific cost. Such revenues are available for the general capital and operating outlays of the water utility enterprise. Some revenues such as certain property taxes are specifically designated for debt service and the fixed costs of the State Water Project, and are not available to the common fund. Water charges are established to provide the revenues that are required in the common fund for general capital and operating outlays and that are over and above revenues from ad valorem taxes, interest, and miscellaneous sources. This provides flexibility in managing continuing operations and funding capital outlays.

Water Taxing and Pricing Framework

The following procedures are intended as a general framework to guide staff in the development of a water rate structure implementing this policy:

- ***Zones of Benefit***: Zones of benefit are to be identified and established in accordance with the District Act. Groundwater charges and property taxes are levied for the benefits received by the water users and property owners benefitting from that zone. For each zone, a basic

water user charge is determined for current groundwater and raw surface water users to be applied to the quantities of water used or consumed.

- ***Basic Water Charge Zones***: The objective of establishing various water charge zones is to recover costs for the benefits resulting from conservation, import, and recharge of water which occur only within that zone. Water charges are levied for water producing operations, such as groundwater pumping and raw surface water diversion. In addition, users may be subject to specific charges that meet special needs of a group of users, such as water master charges for surface water deliveries, a capital charge for equipment or facilities, and power costs for pumping.

- ***Treated Water Surcharge***: A treated water surcharge shall be added to the basic water charge for the price of treated surface water delivered by the District. The charge is to be established at an amount that would promote the effective use of available water resources. The charge may differ between treatment plants to better manage regional variations in groundwater conditions.

- ***Costs for Specific Benefits***: Whenever costs associated with specific benefits are clearly and easily measurable, those costs shall be charged to the beneficiaries, in accordance with their specific zones of benefit. Where there is a question as to the identity of the beneficiary or the method of measuring the benefit, the allocation of costs should remain flexible and be determined in accordance with accepted practices and sound judgements based on the four water pricing concepts. The District recognizes and supports the State Legislature's limitation imposed on the District that rates for agricultural water shall not exceed one-fourth of the rate for all water other than agricultural water. In order to encourage the continuance of agricultural use of land in the County, to encourage the preservation of open space, to defer intensification of users and to further support the limitation imposed by the State Legislature, it is the District's policy that rates for agricultural water shall not exceed one-tenth the rate for all water other than agricultural water.

  Both water charges and property taxes are used to recover costs incurred for the benefit of current water users. The costs for future supply sources can be recovered using current revenues or through project specific long-term financing.

- ***Balancing Costs***: The District recognizes that there may be imbalances between revenues and costs within a zone of benefit from year to year. The District will strive to achieve balance over the long-term in accordance with the District Act and to properly charge recipients for the benefits received.

- ***Incentives***: Incentives in the form of subsidies may be provided in order to reduce the price of specific sources of water in order to optimize use of available or future water resources.

- ***Recycled Water***: From time to time, the District may enter into agreements to provide wholesale delivery or other services related to recycled water. The District will strive to recover the costs of these facilities consistent with the pooling concepts outlined above, while adhering to the specifics of any agreement.

Resolution Adopting "Water Utility Taxing and Pricing Policy" and Rescinding Resolution No. 96-82

3. Executive and Staff Limitations

District staff are authorized to develop a water rate structure which meets the objectives set forth herein, in accordance with the District Act, and using the concepts set forth above. The District's rate structure is implemented only by resolutions approved by the Board of Directors.

Staff is authorized to recommend water charges for consideration by the Board in accordance with the District Act. Water charges, if any, shall be recommended by staff each year be at fixed and uniform rates for agricultural water and for all water other than agricultural water, respectively, except that each such rate for agricultural water shall be one-tenth of the rate for all water other than agricultural water. The Board has determined that agricultural use of lands is of value to the County and the state, and that agricultural lands provide an open space benefit. The Board's limiting staff to a recommendation of agricultural water rates below the maximum allowed by the District Act will benefit water users Countywide, and is necessary to carry out the policies of the State Legislature and the District Board of Directors.

Staff is authorized to prepare, for the Board's consideration, resolutions for the collection of property taxes as needed and authorized under applicable laws.

4. Previous Policy Rescinded

The "Water Taxing and Pricing Policy," adopted by Resolution No. 96-82, is hereby rescinded.

PASSED AND ADOPTED by the Board of Directors of Santa Clara Valley Water District on March 16, 1999 by the following vote:

AYES: Directors Gross, Zlotnick, Judge, Kamei, Sanchez, Estremera, Wilson

NOES: Directors None

ABSENT: Directors None

SANTA CLARA VALLEY WATER DISTRICT

By: _____
Chair/Board of Directors

ATTEST: LAUREN L. KELLER

_____
Clerk/Board of Directors

RL10455

EXHIBIT "A"

SANTA CLARA VALLEY WATER DISTRICT BOARD RESOLUTIONS USED AS A BASIS FOR WATER TAXING AND PRICING POLICY

Resolution 68-4 to govern the management of its water supply and water facilities so as to equalize the availability of water throughout the District by every means available to it to the fullest extent consistent with equity and sound conservation principles; and

Resolution 71-19 adopting "Water Taxing and Pricing Policy;" and

Resolution 74-28 adopting rules and regulations for the service of surface water and establishing a fee and charge structure; and

Resolution 79-87 providing for water importation tax credits and repealing prior resolution which was adopted November 23, 1964.

Resolution 81-44 declaring policy regarding payment of in-county credit for ensuing fiscal years and that no unit rate is provided for the in-county credit and no payments made from and after fiscal year 1983-1984.

Resolution 90-73 adopting and authorizing the filing and implementation of the Santa Clara Valley Water District Urban Water Management Plan which provides for water conservation efforts which are funded by the District.

Appendix B

SANTA CLARA VALLEY WATER DISTRICT
POLICIES AND PROCEDURES
FINANCIAL SERVICES
FUND BALANCE RESERVES

District Reserves

Overview

Introduction

The following Fund Reserves Policy is established in accordance with the Board's Executive Limitation, EL-5 and 5.3, "With respect to the actual, ongoing financial condition and activities, the CEO/GM shall not cause or allow the development of fiscal jeopardy or a material deviation of actual expenditures from Board priorities established in Ends policies." "Further, without limiting the scope of the foregoing by this enumeration, he or she shall not use any unappropriated long-term reserves or undesignated fund balance."

Based on the CEO's interpretation of the above policy, District Fund Balance Reserve policies and procedures have been developed and outlined herein.

The objective of this policy is to ensure the provision of adequate reserves and to provide guidance for the appropriate accumulation and use of District Reserve Funds. In addition to this policy, both long-term goals and short-term objectives will influence and direct the allocation of annual operating funds for the various reserves. The District classifies reserves as either Operating, Capital, Debt Service, or Funded and Contingent Liabilities.

Purpose

Fund Reserves represent a portion of fund balance that is segregated for a specific future use, or is not available for appropriation or expenditure. Adequate reserve levels are a necessary component of the District's overall financial management strategy and a key factor in external agencies' measurement of the District's financial strength.

General Policies

This policy establishes the purpose and use of such reserve funds, as well as the procedures for funding and maintaining reserves.

- Each fiscal year, the District establishes reserve appropriations necessary to meet its legal covenants, set aside cash to pay expenses prior to the receipt of tax revenues, provide for prudent funding of operating contingencies and contingent liabilities, and sustain its capital improvement program.

- There are four categories of reserves: Operating, Capital, Funded and Contingent Liabilities, and Debt Service

- Reserves are to be fully funded each budget year, or staff will establish an intermediate- and long-term funding plan for the reserve as part of the budget process.

- Budgeted reserves may vary from those of the Comprehensive Annual Financial Report (CAFR) where it is appropriate to recognize actual cash transactions that are recorded in the CAFR as liabilities. Such adjustments include recognizing inter-fund loans, commercial paper financing, and certain accruals as funding sources available for appropriation or as funding uses that reduce funds available for other purposes. These adjustments must be annually reconciled to the audited CAFR.

- Reserve funds will not be spent for any function other than the specific purpose of the reserve from which they are drawn, without explicit Board approval for the exception. All appropriations from reserve accounts require Board approval.

- Debt Service Reserves are administered by debt trustees and set at levels established by loan covenants.

- All remaining reserves shall be reviewed each year by staff to determine reserve level requirement recommendations within guidelines established by this interpretation of Board policy.

Operating Reserves

Contingency Reserves

The appropriations for contingencies are set at a fixed amount at the beginning of the fiscal year to provide for unforeseen needs and emergency appropriations during the year. The appropriated amounts are established as follows:

Water Enterprise Fund: Up to 1% of Budgeted Operating Outlays

District General Fund: Up to 0.5% of Budgeted Operating Outlays

All Other Funds: Up to 1.3% of Budgeted Operating Outlays per each Fund

Working Capital Reserves

This reserve establishes available cash assets from which operating and capital expenditures are made prior to the receipt of revenues for the fiscal year. The budget provides for the following levels of reserve:

Water Enterprise Fund: One month (1/12) of budgeted operating outlays (Required under Water Revenue Bond Resolution 94-58 and the Second Supplemental Resolution No 2000-64)

District General Fund: Up to half (1/2) of estimated property tax revenues

Watershed Funds: Up to half (1/2) of budgeted operating outlays

Other Operating Reserves

The following reserves have been established at contractual or recommended levels appropriate to the specific purpose of each reserve:

Supplemental Water Supply Reserve: This reserve is to provide funding for supplemental water purchases, participation in water banking or conservation opportunities, and other water supply needs. The reserve level should not exceed $11 million, which represents the highest annual amount expended for supplemental water supply needs.

Rate Stabilization Reserve: Reserve established to both 1) mitigate fluctuations in water rates by providing funding during periods of extraordinary operating expense or water revenue shortfalls, and 2) to supplement District revenues to meet debt service coverage requirements. The budgeted reserve levels should not be less than 10% of annual debt service due on all Parity Obligation.

San Felipe Reserve: This is the sum of three reserves established pursuant to the District contracts with the U.S. Bureau of Reclamation for operation and maintenance of the San Felipe Division of the Central

Valley Project. If used, the reserve level must be restored to a minimum of $1.75 million plus accrued interest, and not to exceed $10 million.

Environmental Water Banking Reserve: This reserve provides a mechanism to ensure funds are available to meet financial obligations generated by the agreement between the Department of Water Resources of State of California (DWR), the District, and Kern County Water Agency of 2001 Water Resources for Support of the Environmental Water Account under the CALFED Program. The reserve level should not exceed $15 million, and it is based on revenues or other funding sources received in excess of cost.

Maintenance of Newly Improved Creeks: Clean Safe Creeks and Natural Flood Protection Reserve: This reserve is established to appropriate special tax revenues for future maintenance of the nine flood protection projects approved by the voters. Funds remaining in this reserve at the end of the 15-Year Clean Safe Creeks and Natural Flood Protection Program will be available for maintenance of the creek facilities in subsequent years.

Other Clean Safe Creeks Activities Reserves: This Clean Safe Creeks and Natural Flood Protection Fund reserve is established to appropriate special tax revenues for operating expenditures in future years necessary to accomplish the programs and projects approved by the voters. Funds remaining in this reserve at the end of the 15-Year Clean Safe Creeks and Natural Flood Protection Program will be available for these purposes in subsequent years.

Reserved for Encumbrances: Outstanding encumbered purchases, contracts, and other commitments for which the District bears an obligation are recorded as liabilities. These reservation of Fund Balance and Fund Equity represent funds set aside to ensure payment of the District's liabilities. The reserve's balances are adjusted annually to reflect total obligations at year-end, as per Generally Accepted Accounting Principles reporting requirements.

Capital Reserves

The District currently budgets three types of Capital Reserves.

Capital Replacement Reserves: The purpose of this reserve is to accrue funding for asset purchases and replacement in the period of use. Through this funding reservation, monies are set aside for planned future asset expenditures within specified categories. In addition, this reserve provides a funding source for unplanned asset purchases, and assists with asset management and long-range planning. The reserve level is equal to annual depreciation in each fund.

Future Years' Capital Reserves: This reserve is provided within each Fund in support of future capital needs, as projected in the District's 15-year Capital Improvement Plan. For the Clean, Safe Creeks Program Fund, the remainder of both operating and capital revenues not otherwise re-appropriated to restore the fund's operating reserves to their authorized amounts, are appropriated to this reserve for use in financing projects on a pay-as-you-go basis. For all other funds, Future Years Capital Reserve is funded with the remainder of revenues not otherwise needed to restore all other capital reserves and contingencies to their authorized amounts.

Designated for Current Authorized Projects: This reserve provides for the funding of remaining authorized capital appropriations as of the close of the fiscal year. Capital Projects operate on a multi-year basis; hence all amounts approved but unspent on currently active Capital Projects may carry forward (with the exclusion of unspent labor and benefits) in this reserve until the projects are complete. This is in accordance with the Budget resolution, which provides for reappropriation of prior year, unspent capital budget.

Reserves For Funded and Contingent Liabilities:

These reserve funds are established at recommended levels appropriate to the specific purpose of each reserve, for the purpose of discharging a future contingent liability.

Water Enterprise - Bureau Repayment Reserve: Established by Board policy to provide funding for the District's future contractual liability to the U.S. Bureau of Reclamation, Central Valley Project.

Risk Insurance Reserves: Established by Board policy to fund the District's contingent liabilities for general liability, property damage, and worker's compensation under the District's self-insurance program. The amount of this reserve is reviewed bi-annually under an independent actuarial evaluation.

PERS Stabilization Reserve: This reserve is established to mitigate the escalating costs of employer contributions to the California Public Employees Retirement System (PERS). This reserve is established for FY 2003-04 and FY 2004-05 to appropriate prior year-end salary and other expenditure savings as practicable to be available for use beginning in FY 2005-06 to mitigate substantial PERS employer contribution expenses. In FY 2005-06, this Reserve will be re-evaluated and recommendations will be brought to the Board regarding its future use.

State Budget Impact Reserve: Established in anticipation of a one-time 1% Ad Valorem property tax shift for FY 2004-05 and FY 2005-06 from the District to the Education Revenue Augmentation Fund (ERAF).

Debt Service Reserves:

Debt Service Reserves

Debt Service Reserves are to provide a reservation of funds for current debt service payment on outstanding debt.

Reserves are established in accordance with Bond or Certificate of Participation (COP) resolutions and initially funded from proceeds of the issuance. Each Debt Service Reserve Fund is required to be maintained in accordance with resolution mandates.

Debt Service Reserves are held and administered by the issuance trustee, to be used for payment of the principal and interest in the event that on any payment date the fiscal agent does not receive sufficient installment payments for the District for such purpose.

Appendix C

ACRONYMS AND MAPS

ACRONYMS

ABAG	Association of Bay Area Governments
AF	Acre Feet
AG	Agricultural
BAWAC	Bay Area Water Agencies Coalition
BAWSCA	Bay Area Water Supply and Conservation Agency
BMP	Best Management Practices
CIP	Capital Improvement Plan
CVP	Central Valley Project
CVPIA	Central Valley Project Improvement Act
CVSP	Coyote Valley Specific Plan
DSOD	Division of Safety of Dams (California)
DWR	Department of Water Resources
EPA	Environmental Protection Agency
EPM	Environmental Programs and Management
ET	Evapotranspiration
EWA	Environmental Water Account
FAHCE	Fisheries and Aquatic Habitat Collaborative Effort
FY	Fiscal Year
GRU	Government Relations Unit
HAZMAT	Hazardous Materials
HET	High Efficiency Toilet
INAAP	In-field Nutrient Assessment Assistance Program
ISMP	Information Systems Management Plan
IWRP	Integrated Water Resources Plan
LTA	Long-term average
LUSTOP	Leaking Underground Storage Tank Oversight Program
M&I	Municipal and Industrial
MOU	Memorandum of Understanding
MWD	Metropolitan Water District of Southern California
PCE	Perchloroethylene
PVWMA	Pajaro Valley Water Management Agency
PWTP	Penitencia Water Treatment Plant
RWQCB	Regional Water Quality Control Board
RWTP	Rinconada Water Treatment Plant
SBCWD	San Benito County Water District
SCRWA	South County Regional Wastewater Authority
SCVURPPP	Santa Clara Valley Urban Runoff Pollution Prevention Program
SFPUC	San Francisco Public Utility Commission
STAG	State and Tribal Assistance Grants
STWTP	Santa Teresa Water Treatment Plant
SWP	State Water Project
T&D	Transmission and Distribution
ULFT	Ultra-low-flush Toilets
USBR	United State Bureau of Reclamation
UWMP	Urban Water Management Plan
UST	Underground Storage Tank
WET	Water Efficient Technologies
WTP	Water Treatment Plant

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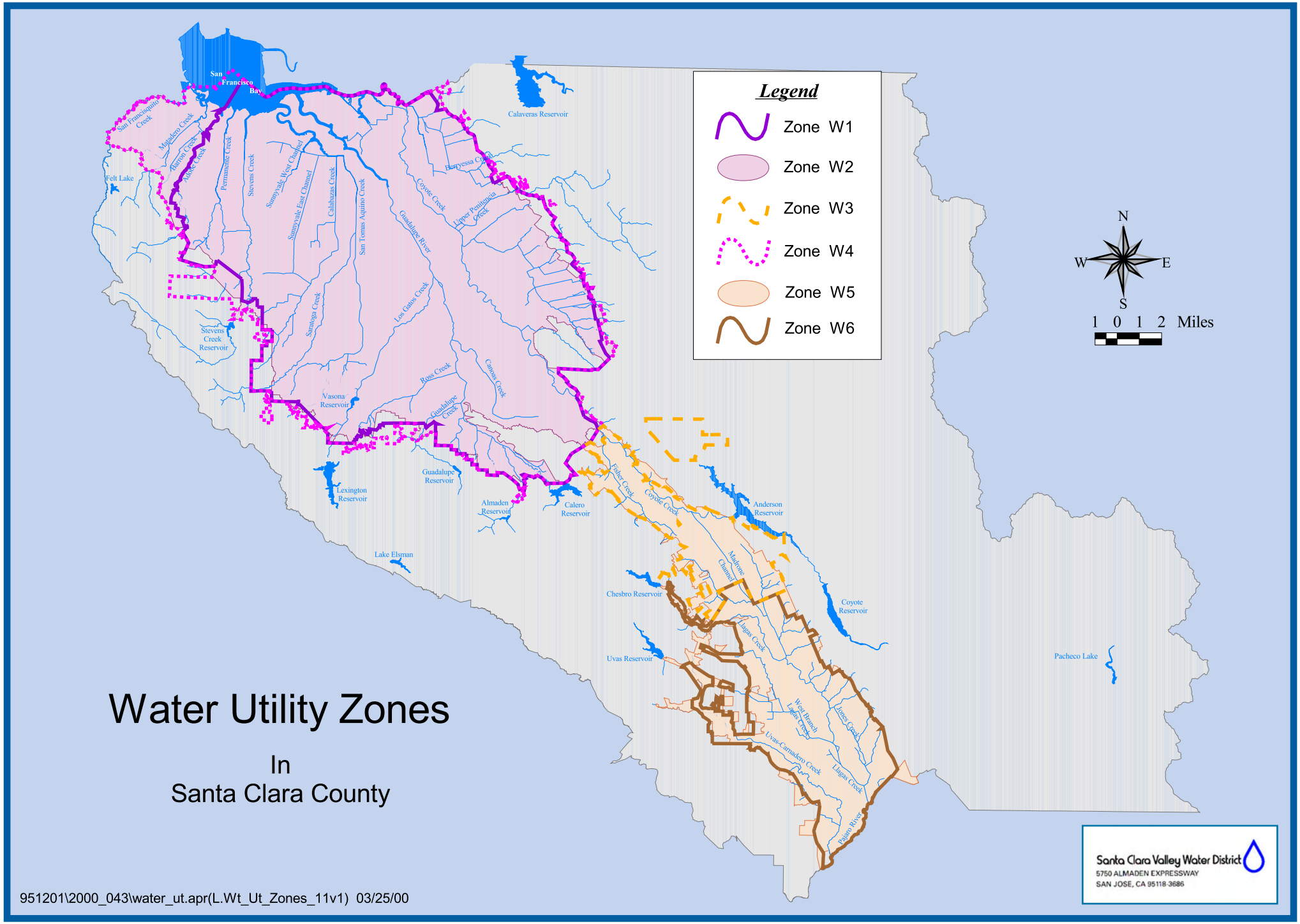
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Calero Reservoir
Lake Elsman
Chesbro Reservoir
Uvas Reservoir
Anderson Reservoir
Coyote Reservoir
Pacheco Lake
San Francisquito Creek
Matadero Creek
Barron Creek
Adobe Creek
Permanente Creek
Stevens Creek
Sunnyvale West Channel
Sunnyvale East Channel
Calabazas Creek
San Tomas Aquino Creek
Guadalupe River
Coyote Creek
Berryessa Creek
Upper Penitencia Creek
Saratoga Creek
Los Gatos Creek
Ross Creek
Guadalupe Creek
Canoas Creek
Fisher Creek
Coyote Creek
Madrone Channel
Llagas Creek
West Branch
Uvas Creek
Uvas-Carnadero Creek
Jones Creek
Llagas Creek
Pajaro River
Water Utility Zones
In
Santa Clara County
Santa Clara Valley Water District
5750 ALMADEN EXPRESSWAY
SAN JOSE, CA 95118-3686
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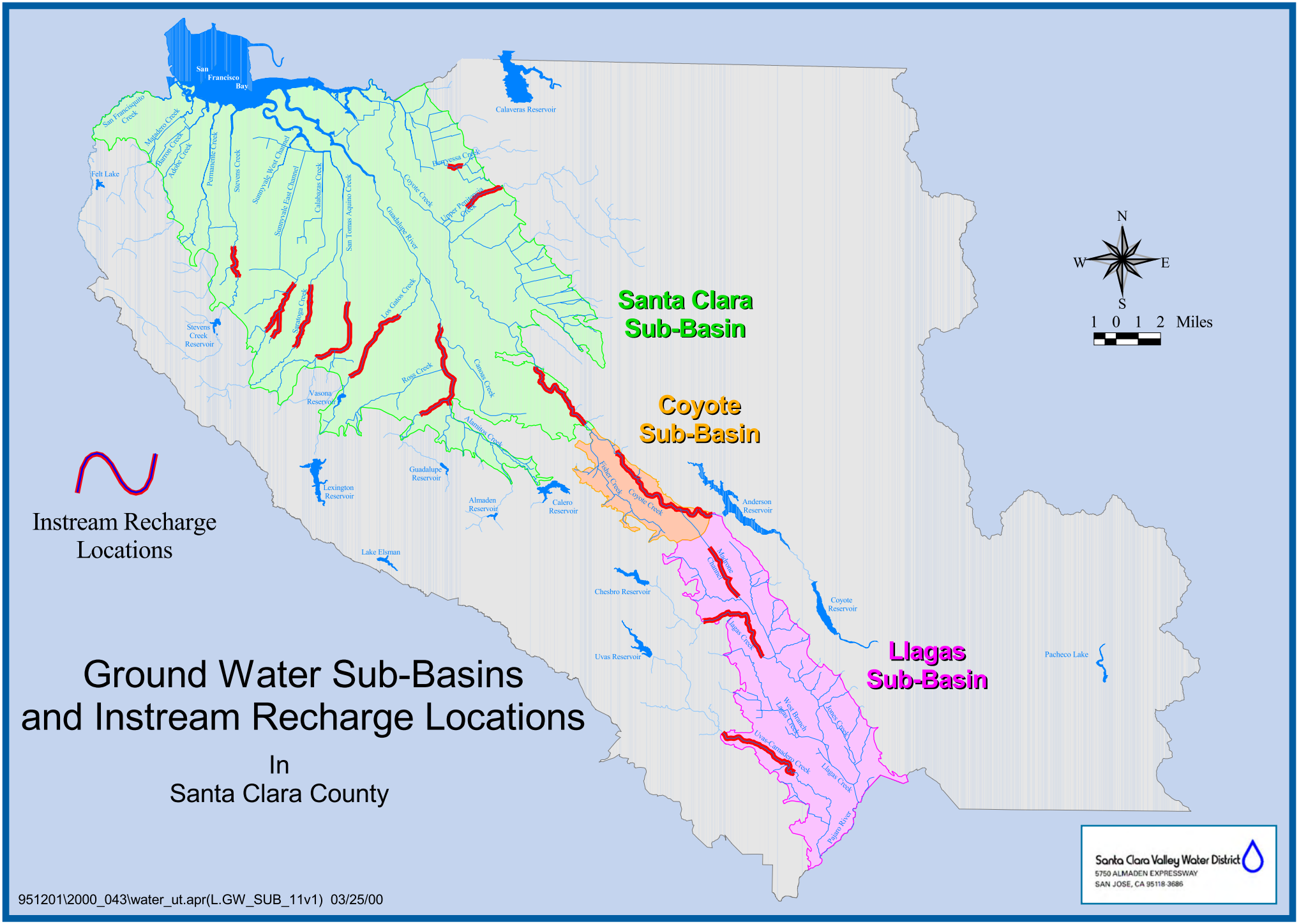
Ground Water Sub-Basins
and Instream Recharge Locations
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